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INTRODUCTION AND WHO THE GUIDELINE APPLIES TO

These guidelines have been developed to provide the best available evidence for use in the management of induction of labour.

This guideline applies to all healthcare professionals providing care for pregnant women who are undergoing induction of labour at the UHL.

RELATED DOCUMENTS

- Policy for consent to examination or treatment

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4. INDUCTION OF LABOUR

If a woman is being induced and has been assessed as high risk, she should be assigned to consultant led care in labour. For women booked under consultant care/ specialist clinics, the authorisation, indication and method for induction must be according to the written statement of the consultant or deputy. For women assigned to midwife led care antenatally, induction should be discussed by their community midwife near term.

Indication for induction of labour must be documented in the woman’s health care record by the clinician taking the decision to induce.

5. INDUCTION OF LABOUR IN SPECIFIC CIRCUMSTANCES

CONFIRMATION OF EXPECTED DATE OF DELIVERY

Induction date should be arranged using confirmed EDD.

All pregnant women should have accurate gestation dating between 8 and 13 weeks if possible, and before 24 weeks.

If EDD has not been confirmed – refer to General Obstetric Clinic / Consultant Led Clinic.

TIMING OF INDUCTION OF LABOUR FOR PROLONGED PREGNANCY

Within the Trust, routine induction of labour for prolonged pregnancy should be offered at Term +12. If the woman requests IOL sooner than Term + 12 but on or after Term + 7, this should be supported and IOL arranged as per NICE guidelines.

Women should be given information (verbally and written) about potential benefits and risks of induction of labour. Women who have had a previous caesarean section, should receive have a personalised care plan. Details of the pathway that they should follow can be found in the vaginal birth after caesarean section below (page 5) and on the flowchart in appendix 5 on page 34.

When a woman attends hospital for induction at Term +12 and is able to proceed straight to artificial rupture of membranes, she may be supported in waiting for induction until term +13 if she wishes and should be, with consent, offered a stretch and sweep prior to discharge.
Women who do not wish to have IOL by 42 weeks should be referred to General Obstetric Clinic / Consultant Led Clinic and an individual management plan made. Fetal monitoring with CTG twice a week and AFI (amniotic fluid index) measurement once a week may be useful in these cases and should be offered.

VAGINAL BIRTH AFTER CAESAREAN SECTION

Induction of labour for women having VBAC is associated with a significant risk of uterine rupture, with a decrease in the rate of successful vaginal birth. Women may be offered IOL for the above indications as long as they have been carefully counselled and this has been fully documented by a senior obstetrician.

Women wishing to aim for vaginal birth after caesarean section should be provisionally booked for caesarean section at term +7 onwards, when they initially attend birth choices or general obstetric clinic. The booking form should be completed, but the consent form etc does not need to be done at that time (unless they already know that they would not want an induction of labour).

The woman should be booked a follow up appointment at 39 - 40 weeks gestation in general obstetric clinic. At this appointment, an individualised plan about induction of labour should be made by a Consultant Obstetrician following abdominal and vaginal assessment, taking into account her individual history and requests. Where IOL is considered appropriate, a clear plan should be made in the notes including what counselling has taken place and whether prostaglandins may be used. Where prostaglandins are felt appropriate, women should specifically made aware that this is an unlicensed indication for the drug and that there is an increased risk of uterine rupture (approximately five times higher than with spontaneous labour) and decreased rate of vaginal delivery. An IOL can then be booked and the caesarean section cancelled. Where IOL is not appropriate, the appropriate paperwork for the caesarean section should be completed and the pre-operative appointment should go ahead.

Where physically possible, women who have had a previous caesarean section who are having induction of labour should proceed directly to artificial rupture of membranes +/- syntocinon. This is the safest method of induction, with an approximate doubling of risk of uterine rupture. Where this is not possible, induction with the balloon catheter should be offered as this has a smaller risk of uterine rupture when compared to prostaglandin induction. If the patient requests induction with prostaglandins instead of balloon induction she may be given Propess® for 12-24 hours (not prostin) only after agreement by a named obstetric Consultant. After receiving Propess®, a woman who has had a previous caesarean section must be reviewed by a doctor after 12 hours if the Propess® is
not being removed. The patient must be informed of the increased risk of uterine rupture with prostaglandin induction and that this is not licensed for this indication.

**IVF PREGNANCY**

IOL may be offered at 40 weeks gestation or later and should be at the discretion of the Obstetrician. The woman’s history and preferences should be taken into account when making a joint decision about induction of labour. Women who are pregnant via IVF or ICSI should all be offered continuous fetal monitoring in labour due to a higher risk of adverse events. These women can be offered outpatient induction with a balloon catheter; however it is not appropriate for these women to have outpatient induction with Propess®.

**FETAL GROWTH RESTRICTION**

In women whose pregnancy is complicated by growth restriction, the decision to induce labour should be made in consultation with a senior obstetrician.

Intrapartum care needs to be individualised, particularly with regards to the need for and frequency of fetal monitoring during induction prior to onset of active labour.

Balloon catheter induction (or vaginal Prostaglandins if the woman prefers) may be used but the woman should be advised to remain an inpatient, with a personalised plan for fetal monitoring.

**SUSPECTED FETAL MACROSOMIA AND/OR MATERNAL DIABETES**

In women with diabetes, decision regarding IOL will be made by the responsible clinical team - please refer to the “Diabetes in Pregnancy” guideline for more detail.

The on call obstetric team should review the woman prior to commencement of induction. Intrapartum care plans for management of these women (including the need for variable rate intravenous insulin infusion) should be present in the health care record, as should be instructions for postnatal requirement for hypoglycaemic agents. Should that not be the case, the obstetric team on call should contact the Obstetric Diabetes Team for advice where appropriate.

There is some evidence that IOL in women who have a large for dates fetus may decrease the rates of both shoulder dystocia and neonatal bony injury. Where the estimated fetal weight is more than 90\textsuperscript{th} centile and in the absence of diabetes or other obstetric indications, induction of labour may be offered at 40 – 41 weeks gestation, solely on the basis that a baby is suspected to be macrosomic. Women should be informed that scans after 37 weeks have a 20% margin of error.
INTRAUTERINE DEATH

In the event of an intrauterine death, depending on maternal condition, intact membranes and the absence of evidence of bleeding or sepsis, the woman can opt for immediate or delayed induction of labour, or expectant management.

Where there is evidence of bleeding, sepsis or ruptured membranes, immediate induction should be offered.

OBSTETRIC CHOLESTASIS

Evidence suggests that the increase in stillbirth occurs with women with bile acids >40 at any point or ALT >110. These women should be offered IOL at 37 weeks assuming that a full liver screen has been carried out and that it is negative.

Those whose ALT has remained <110 iU/L and bile acid <40 mmol/l should be offered induction of labour from 38 weeks assuming that a full liver screen has been carried out and that it is negative.

The woman should be informed of the increased risk of perinatal morbidity from early intervention (after 37+0 weeks gestation).

GRAND MULTIPARITY (P5 OR MORE)

Grand multiparous women have approximately the same risk of uterine rupture as women having a VBAC when they have IOL. Artificial rupture of membranes is the safest option (+/- oxytocin) and this should be attempted by the most experienced operator available. Balloon catheter induction should be offered as this has a decreased risk of uterine rupture. Propess®, if given, can remain inserted for 24 hours. They should not receive prostin at all. Women should be fully counseled and appropriately selected for IOL.

MATERNAL REQUEST / PELVIC GIRDLE PAIN

Induction of labour should not be routinely offered on maternal request alone, except where there are exceptional social circumstances, in which case IOL may be offered. The timing of the IOL should be at the obstetrician’s discretion but should ideally be avoided until 41 weeks as per NICE guidance.

Discussion with and documentation by the Obstetric team should take place in a Consultant led Clinic with women who request induction of labour in circumstances other than those recommended.
**MATERNAL AGE**

All women over 40 years of age have an increased risk of stillbirth compared to those under 35. Therefore, women over 40 may be offered IOL, after careful assessment of their individualised risk factors (including nulliparity or Afro-carribean / south east Asian descent), aiming for delivery around their EDD, after discussion with an Obstetrician.

The overall risk is small in the absence of other risk factors, and thus women should be supported to avoid IOL if this is their wish.

Where the woman is otherwise low risk, induction may be offered and booked by the Community Midwife.

**POLYHYDRAMNIOS WITH AFI < 30**

There is insufficient evidence in the literature for induction of labour for mild/moderate polyhydramnios alone. However induction of labour may be indicated when polyhydramnios is part of a clinical picture such as maternal diabetes or other obstetric conditions or reduced fetal movements.

If the woman is experiencing discomfort it is reasonable to offer IOL at 41 weeks instead of 42 weeks as per NICE guidance.

**PROLONGED LATENT PHASE**

Women who have three admissions in the latent of labour, or where the latent phase has lasted over 20 hours, should be discussed with the Obstetric ST3 or above. It is reasonable to offer augmentation of labour under these circumstances after discussion with the woman about her preferences.

**PRETERM PRE-LABOUR RUPTURE OF MEMBRANES**

From the NICE guideline (CG70 Inducing labour): If a woman has preterm pre-labour rupture of membranes, induction of labour should not be carried out before 34 weeks, unless there are additional obstetric indications (for example, infection or fetal compromise). She should receive erythromycin 250mg qds orally for 10 days or until delivery of the baby, whichever is sooner and IM steroids if these have not been given previously.

If a woman has preterm pre-labour rupture of membranes after 34 weeks, the maternity team should discuss the following factors with her before a decision is made about whether to induce labour:
- Risks to the woman (eg sepsis or caesarean section)
- Risks to the baby (eg sepsis or problems relating to preterm birth)
- Availability of neonatal intensive care facilities

The timing of induction should be agreed with an Obstetric Consultant and the method used should follow that indicated below in the ‘Term Pre-labour Rupture of Membranes’ section. Balloon catheter induction is not appropriate in women with rupture of membranes.

**TERM PRE-LABOUR RUPTURE OF MEMBRANES**

Women at ≥ 37 weeks gestation, with current or previous Group B streptococcus, HIV, Hepatitis B or C infection should all be offered immediate induction of labour following confirmation of rupture of labour.

Women with confirmed pre-labour rupture of membranes without these risk factors at ≥ 37 weeks gestation should be advised that:

- Risk of serious neonatal infection is around 1%
- 60% will labour spontaneously within 24 hours

These women should be offered immediate induction of labour, where staffing and capacity allow, or expectant management and induction of labour booked at approximately 24 hours after the time of rupture of membranes.

Vaginal Prostaglandins in the form of Prostin rather than Propess® should be used if indicated by the Bishop score. One dose of Prostin 3mgs only should be given for women with a closed or very unfavourable cervix, followed 6 hours later by Oxytocin infusion. Balloon catheter induction is not appropriate with ruptured membranes.

To reduce the risk of infection VE’s should be kept to a minimum. If the woman is not contracting, a vaginal examination should not be performed before starting oxytocin infusion. Following the commencement of oxytocin contractions should be established for 4 hours before vaginal examination unless there are maternal or fetal concerns.

For women having VBAC, they should not receive either Propess or prostin. Instead, a vaginal examination by a senior obstetrician should be offered. Where the cervix is favourable, they should proceed to oxytocin infusion after careful counselling about the increased risk of uterine rupture (approximately doubled) compared with spontaneous labour. Where they do not wish to proceed with IOL, or where IOL is felt to be clinically inappropriate, they should be offered a category 3 caesarean section (unless there are other maternal or fetal concerns).
approximately 16 - 24 hours following rupture of membranes. (This should ideally occur within daytime hours but not unduly delayed).

6. WOMEN DECLINING INDUCTION OF LABOUR

Women may choose to decline induction of labour and we support woman in their right to do so. Where induction of labour has been offered for either maternal or fetal indications (rather than solely for maternal request), it is important that the risks and benefits of declining induction have been fully discussed and understood by the woman. The woman should be offered the opportunity to discuss this further with an Obstetric doctor (ST3 or above). Where there is time to do so, the woman should be referred to General Obstetric Clinic / Consultant Led Clinic and an individual management plan made. When the woman declines induction at short notice, it is appropriate to invite her to attend the Maternity Assessment Unit so that further assessment can be made, appropriate counseling given and an individual management plan made. All conversations should be fully documented in the maternal notes.

7. MEMBRANE SWEEPS

PROLONGED PREGNANCY:

Women without contraindications and with cephalic presentation and longitudinal lie can be given with consent, ‘sweeping of the membranes’ when they attend their 40 – 41 week check either in clinic or at home. This includes women who have had one previous caesarean section.

PLANNED IOL AT 37 WEEKS – 41 WEEKS:

“Sweeping of the membranes” should be given, with consent a week prior to any booked induction of labour and this may be performed or offered by the community or hospital midwife or obstetrician as for prolonged pregnancy. This includes women who have had one previous caesarean section.

WOMEN HAVING IOL ONLY PRIOR TO 37 WEEKS:

Where a woman is being induced prior to 37 weeks, a pre-induction membrane sweep should only be performed by an Obstetrician.

CONTRAINDICATIONS TO A MEMBRANE SWEEP

- Head not fixed in pelvis
- Full anticoagulation
MEMBRANE SWEEP PROCEDURE

Consent to procedure and presence/absence of chaperone must be obtained and documented.

In order to perform a membrane sweep the cervix must be open on digital vaginal examination.

- The midwife should advise the woman that a membrane sweep is likely to cause discomfort for the duration of the procedure.
- Ensure she is able to make an informed decision about whether to have the procedure or not.
- Verbal consent should be obtained prior to all pelvic examinations and a chaperone should be offered. This should be documented in the woman’s Healthcare record.
- Check and document position of head and placenta (check previous scanning reports)
- Abdominal palpation must be undertaken before procedure
- Throughout the procedure, the woman should be observed for verbal and non-verbal indications of distress. Any request for the procedure to be discontinued should be respected
- If closed cervix – attempt digital stretch until able to perform membrane sweep. **If unable to admit finger – membrane sweep not to be attempted.** The recommended procedure is that “as much membrane as possible is separated from the lower uterine segment by sweeping the index finger twice in a circumferential manner (i.e. rotating through 360° twice around the internal os)”.
- Advise woman that she may experience ‘contractions’ and bleeding post sweep and when to seek professional help.
- Check fetal heart rate post procedure.
- A maximum of three membrane sweeps should be offered.

8. PROCESS OF BOOKING IOL

Induction of labour should be booked through the co-ordinating midwife on delivery suite at either Leicester Royal Infirmary or Leicester General Hospital. The most up to date paperwork should be used.

Where the volume of inductions exceeds the available capacity to book and / or proceed, a categorisation system has been designed in order to assist in prioritisation of inductions. This can be found in Appendix 1.
9. **BISHOP SCORE**

The Bishop Pelvic Scoring system may be used to assess favourability of the Cervix, either prior to commencing Induction of Labour or following spontaneous commencement of labour.

Use of the Bishop Score by all staff will enable consistency in:

- Measuring progress of labour
- Giving information to women in labour
- Decision making

Verbal consent should be obtained prior to all pelvic examinations and a chaperone should be offered. This discussion must be documented.

The Bishop Score should be recorded in the designated area in the intrapartum notes. It should be noted that Bishop Score is less useful when a woman has had balloon catheter induction as this will cause dilatation above effacement and the aim is to proceed to artificial rupture of the membranes rather than achieving a higher Bishop Score.

Contact core midwifery staff on Delivery Suite for advice if the cervix cannot be felt or accurately assessed.

10. **PROCESS OF INDUCTION**

**ASSESSMENT ON THE DAY OF IOL**

Verbal consent for all procedures and the IOL process must be obtained and documented in the health record following a full explanation of the process

- A risk assessment should be carried out on admission using the Intrapartum risk assessment sheet.
- A presentation ultrasound should have been performed on admission to confirm presentation which must be cephalic. (This is unnecessary if a ultrasound performed ≥36 weeks has already demonstrated cephalic presentation AND the woman is not going home with Propess® or Foley in situ).
- Maternal observations should be taken and MEOWS score 0. A MEOWS of 1 or more will require discussion with the Obstetrician.
- A CTG should be performed and classified as normal.
- There should be no SRM.
BALLOON CATHETER INDUCTION OF LABOUR

If the patient has an unfavourable cervix, cervical ripening is required. Verbal consent for induction of labour must be obtained for all women, with additional consent for balloon induction (see below).

CTG monitoring for 30 minutes prior to any cervical ripening should be undertaken. The induction should only proceed if the CTG is normal. If the CTG is non-reassuring or abnormal DO NOT continue with the induction process and document a plan of care and organise an obstetric review.

The patient information leaflet specific to Balloon Induction of Labour (appendix 6) must be given to all women who are considering balloon induction.

WHO CAN HAVE BALLOON INDUCTION?

Audit has shown safe practice following the phased introduction of foleys catheter induction. All women can now be offered induction of labour with foleys catheter with the following EXCEPTIONS:

- Head not fixed in the pelvis
- Ruptured membranes
- Women with latex sensitivity / allergy
- Cervix is open enough to proceed with artificial rupture of membranes
- Woman declines balloon induction and wishes to proceed with prostaglandin induction

The following must still be adhered to:

- Trained staff available to insert the balloon catheter or supervise insertion
- Woman has read and understood the patient information leaflet and has signed to say she is happy to proceed (see below documentation)

BALLOON CATHETER INSERTION PROCEDURE

DOCUMENTATION

As balloon induction of labour with a Foley catheter is unlicensed use, the following statement should be written or stamped in the notes and the woman asked to sign and date this:
“I confirm that I have read and understood the patient information leaflet regarding balloon induction of labour with Foley catheter and wish to proceed”.

**INSERTION**

CTG monitoring should be undertaken for 30 to 60 minutes immediately following balloon catheter insertion.

Insertion of the balloon catheter can be undertaken by obstetric doctors or midwives who have been LCAT certified or obstetric doctors or midwives being supervised by a doctor, or midwife who has been LCAT certified. This will initially be restricted to band 6 and 7 midwives and Consultants and Specialty Registrars in Obstetrics and Gynaecology ST1 and above.

The procedure is performed under aseptic conditions and should be clearly documented in the notes.

Equipment required is as follows:

- 22F, 24F or 26F Foley catheter
- speculum
- sponge holding forceps
- sterile gloves
- sterile towel
- 30ml sterile water/saline
- 3 10ml syringes
- spigot
- tape
- light source

Ensure all equipment is available. Once the patient is positioned, place equipment on the sterile drape. Vaginal examination should be undertaken prior to the procedure to ensure that the cervix is not already suitable for artificial rupture of the membranes.

- Insert the speculum to visualise the cervical os
- Use the sponge holder to guide the catheter through the os past the balloon
- Alternatively, perform a vaginal examination, stabilise the external os with two fingers and feed the catheter through the cervix.
- Inflate the balloon to 30 ml
- Tape the end of the catheter to the patient’s inner thigh under slight tension
• Document procedure in notes
• A digital vaginal examination should be undertaken to confirm the correct placement of the balloon (above the internal os)

POST PROCEEDURE

Following introduction of the balloon catheter, a CTG should be carried out for a minimum of 30 minutes if normal and 60 minutes for women who are going to be managed as outpatients.

OUTPATIENT MANAGEMENT WITH BALLOON INDUCTION

There are no reported cases of hyperstimulation with any form of mechanical induction therefore it is safe for the majority of women to go home with a Foley catheter in situ. If the woman does not want to go home, she may be admitted to the ward instead.

The following women should not be offered outpatient induction:

• Women with pre-eclampsia
• Women with severe pregnancy induced hypertension (requiring two or more anti-hypertensive agents)
• Women with Type 1 or 2 diabetes
• Women who are considered to be at high anaesthetic risk (eg BMI >45)
• Women with decreased fetal movements within the last 24 hours or have been an inpatient with decreased fetal movements within the last 7 days.
• Twin pregnancy
• Induction occurring prior to 37 weeks or after 42 weeks gestation
• Known fetal abnormality or growth restriction
• History of unstable lie in this pregnancy
• Any condition that has required inpatient monitoring in the 7 days leading up to the induction

Furthermore the following 'social' criteria should be met:

• Lives less than 30 minutes (average travel time) of the hospital, with transport and access to a mobile telephone
• Able to remain in the company of an adult
• No current safeguarding alerts open at the start of the IOL process
If there is any doubt about the woman’s suitability for outpatient induction, this should be discussed with the Obstetric Consultant or Senior Registrar and a plan documented in the notes.

On discharge the woman must be aware of:

- What contractions will feel like and how to monitor them
- How to differentiate between contractions and abdominal pain
- Vaginal bleeding and how it differs from a show
- Signs of SRM
- Signs of infection
- The need to continue monitoring fetal movements
- How to recognise if the Foley has fallen out
- What the plan is for communication and when to contact the hospital.

The woman should be advised to contact the delivery suite when:

- The contractions are regular >2:10, painful and lasting up to 45 seconds or more
- The contractions are occurring more than 4 in every 10 minute period
- There is any vaginal bleeding or SRM
- Fetal movements are reduced

Women must be provided with the appropriate contact numbers.

**INPATIENT MANAGEMENT OF INDUCTION**

Women who meet the criteria for outpatient IOL, but who either do not want to go home or do meet the ‘social’ criteria for doing so, should be offered ward admission. They can still be treated as low risk whilst inpatient and should have once daily observations but do not need CTG monitoring unless abnormal observations, new symptoms or decreased fetal movements develop.

A senior obstetrician should be involved in all decisions to move high risk women having balloon induction to the ward. Women at high anaesthetic risk and those with existing fetal concerns should not be transferred to the ward. An individualised care plan should be made regarding frequency of CTG and observations for these women.

**LABOUR WITH Balloon Catheter Induction**

If the woman would otherwise have met the criteria for intermittent auscultation and has only required one intervention to labour (ie Foley catheter, single
Propess®, single prostin® or artificial rupture of the membranes), she may choose to labour and deliver in the Orchard Birth Centre or Meadow Birth Centre, providing an initial CTG in labour is normal.

**REMOVAL OF BALLOON CATHETER**

The balloon catheter should be left in until the catheter falls out or up to a maximum of 24 hours. For women with significant issues affecting their pregnancy or wellbeing (such as severe pre-eclampsia or severe growth restriction), vaginal examination can be considered earlier (after 6-12 hours) to see if artificial rupture of the membranes is possible.

The balloon should be deflated prior to removal in cases of ruptured membranes and then syntocinon can be started when safe to do so. Otherwise the balloon can be gently removed during a digital vaginal examination (this is particularly useful when assessing for early removal).

A vaginal examination should then be performed to assess for the suitability for ARM.

**PROPESS® USE**

Where the cervix is not open enough to allow ARM, and the woman does not meet the criteria for cervical priming with the balloon catheter (including patient preference), Propess® should be administered for cervical ripening by a midwife or obstetrician trained to do so.

Propess® vaginal insert is stored in the freezer. It can be removed from the freezer immediately before use or up to 20 minutes before insertion.

CTG Monitoring to be carried out for 30 minutes pre and 30-60 minutes post Propess® Dose. Post Propess® CTG should be commenced 30 minutes after dose is administered. Findings should be recorded in the notes.

**The induction should only proceed if the CTG is normal.** If the CTG is non-reassuring or abnormal DO NOT continue with the induction process and document a plan of care and request an obstetric review.

If the woman is not contracting regularly and Delivery Suite is too busy to continue with the induction process 24 hours after Propess® insertion, Propess® can be left in the vagina for another 6 hours maximum (unlicensed).

If labour fails to establish following 24 hours of Propess® treatment, obstetric review should take place and an individual management plan should be agreed
with the woman and documented in her healthcare record. If the woman is on the delivery suite then she must not be transferred to the ward without a clear management plan. Once prostaglandin priming has occurred with Propess, the aim should always be to progress to artificial rupture of membranes, unless the cervix remains closed. Doses of Prostin® are not licensed and should only be used in exceptional circumstances.

**MANAGEMENT OF HYPERSTIMULATION**

**Tachysystole:** ≥ 5 contractions in 10 minutes with normal CTG

**Hypertonus:** Painful contraction lasting ≥ 90 seconds with normal CTG

**Hyperstimulation:** Tachysystole or hypertonus with abnormal CTG

If tachysystole or hypertonus is suspected, CTG monitoring should be commenced immediately. If CTG is normal, the SpR (ST3 or above) should be informed and the CTG should be continued. If the CTG is not normal then Propess® should be removed and the SpR informed immediately. Terbutaline 0.25 mg s/c should be considered, however due to the short half-life of dinoprostone and the low dose released per hour, the hyperstimulation should resolve spontaneously in 15 – 20 minutes.

When the hyperstimulation has resolved the consultant should be contacted to discuss whether and how to proceed with the induction. The options are to re-insert Propess® or to consider mechanical induction with a Foley catheter.

**SPONTANEOUS RUPTURE OF MEMBRANES WITH PROPESS® IN SITU**

If the membranes rupture whilst Propess® is situ, CTG should be started and contractions assessed. If there is painful uterine activity, perform a VE to assess if labour is established. The manufacturer suggests that if there is no regular uterine activity or despite regular contractions the cervix is less than 3cms dilated (i.e. labour is not established), Propess® can be left in situ for the planned duration.

If labour is established, the Propess® can be removed. Syntocinon must not be started for a minimum of 30 minutes following removal.

**MONITORING DURING PROPESS**

A senior obstetrician should be involved in all decisions to move women with Propess® to the ward. Women who have had a previous caesarean section, women at high anaesthetic risk and those with existing fetal concerns should not
be transferred to the ward. An individualised care plan should be made regarding frequency of CTG and observations for these women.

If contractions become strong and regular, SRM occurs or if the woman requires further analgesia, then a vaginal examination should be considered and a CTG performed.

If labour is diagnosed, then transfer to delivery suite (or birth centre where appropriate) should occur to continue management.

**OUTPATIENT INDUCTION WITH PROPESS®**

Due to the risk of hyperstimulation, the criteria for outpatient induction with Propess® must remain more restrictive. If the woman chooses to undergo prostaglandin induction, they can be offered the option of going home following the insertion of Propess® if they would have met the criteria for delivering in the alongside birth centre had they laboured spontaneously. They may also be offered the option of going home if they only require an artificial rupture of membranes for induction (see section 13 for more details). They should be warned about the risk of hyperstimulation with Propess® and that outpatient balloon induction would be the preferred management. This includes women who are or have:

- Booked under midwife led care and no risk factors have been identified
- Between 37 weeks and 40+12 weeks gestation
- Aged 18 or more at booking
- Has a BMI of 35 or below
- There are no language barriers and she has a good understanding of English
- Para 3 or less and has no history of precipitate labour (Para 4 may go home but this should be carefully discussed with the woman and the risk of hyperstimulation and rare but subsequent rupture documented and understood).
- Has not had any previous uterine surgery
- Lives within 30 minutes (average travel time) of the hospital, has transport and access to a mobile ‘phone
- Attends with an adult and must remain in the company of an adult.
- No current safeguarding alerts open at the start of the IOL process.

Women who do not meet the criteria for (or decline) outpatient IOL, should be offered hospital admission but may still be treated as low risk whilst inpatient.
With prostaglandin induction, the woman should remain in the designated induction of labour area for a further 30 minutes following completion of 60 minutes of normal post Propess® CTG and longer if any concerns. Providing all maternal and fetal monitoring has been normal throughout the process the woman can be offered discharge home. NB Women who have required prostaglandins for induction followed by ARM, should not be offered subsequent home management.

Uterine activity must be absent prior to discharge.

If the woman would otherwise have met the criteria for intermittent auscultation and has only required one intervention to labour (Foley catheter, single Propess®, single Prostin® or artificial rupture of the membranes), she may choose to labour and deliver in the Orchard Birth Centre or Meadow Birth Centre, providing an initial CTG in labour is normal. Those whose sole intervention is artificial rupture of the membranes, may choose to labour at home (if they were already planning a home birth) or SMBC if they meet the criteria as described in section 12).

On discharge the woman must be aware of:

- What contractions will feel like and how to monitor them
- How to differentiate between contractions and abdominal pain
- Vaginal bleeding and how it differs from a show
- Signs of SRM
- Signs of infection
- The need to continue monitoring fetal movements
- How to recognise if the Propess® has fallen out
- What the plan is for communication and when to contact the hospital.

The woman should be advised to contact the delivery suite when:

- The contractions are regular >2:10, painful and lasting up to 45 seconds or more
- The contractions are occurring more than 4 in every 10 minute period
- There is abdominal pain other than contractions and she should be advised to remove the Propess® and bring it with her to hospital
- There is any vaginal bleeding or SRM
- Fetal movements are reduced
- The occasional undesirable side effects that may be seen that can normally be associated with intravaginal dinoprostone administration.
Gastrointestinal effects such as nausea, vomiting and diarrhoea have been reported.

Women must be provided with the appropriate contact numbers.

The midwife must be clear that the woman has fully understood and document to that effect by completing the discharge checklist (see appendix 4).

### REMOVING PROPESS

To remove Propess®, apply gentle traction on the retrieval tape (the insert will have swollen to 2-3 times its original size and be pliable). The time of removal must be documented in the health record.

Propess® is designed to remain in the vagina for up to 24 hours. If after 24 hours, Delivery Suite is unable to continue with the induction process for safety reasons and the woman is not contracting, Propess® can be left in the vagina for a further 6 hours (maximum 30 hours total). A CTG must be performed for 30 to 60 minutes and this has to be discussed with a senior obstetrician.

Women who have had a previous caesarean section should be reviewed by a senior Obstetric doctor after 12 hours if the Propess® is not being removed.

Propess® must be removed immediately in the following instances (removal must be documented in all cases):

- When labour is established (contractions ≥3:10 and cervix dilated ≥ 3cm)
- PV bleeding
- Uterine hyperstimulation or hypertonic uterine contractions (see above for definition and management)
- Evidence of fetal compromise
- Evidence of maternal adverse dinoprostone effects
- At least 30 minutes prior to starting an intravenous infusion of Oxytocin
- Following delivery if it has not already been removed

### 11. FOLLOW UP FOR ALL OUTPATIENT INDUCTIONS

The midwife must inform Co-Ordinator/bleep holder of women sent home with Balloon Catheter in situ, Propess® insitu or following ARM.
OUTPATIENT BALLOON CATHETER INDUCTION: MIDWIVES' RESPONSIBILITIES

The Midwife caring for the inductions must ensure that the woman has a time to return to the labour ward at the point she is discharged.

The Midwife must have a low threshold for advising women to return to the hospital. The woman must be invited in for assessment in the event of her second telephone contact. If the Foley catheter falls out, the woman should be advised to keep it and bring it into hospital with her.

OUTPATIENT PROPESS®: MIDWIVES' RESPONSIBILITIES

The Midwife caring for the low risk inductions must telephone the woman 6 hours following discharge and 6 hourly thereafter to assess progress. However, providing there are no concerns the woman should not be disturbed between 10pm and 7am.

The midwife must have a low threshold for advising women to return to the hospital. If there is pv bleeding, contractions are occurring more than 4 in every 10 or abdominal pain other than contractions, the woman should be asked to remove the Propess and bring it to hospital. If the Propess® falls out, the woman should be advised to keep it and bring it into hospital with her.

The woman must be invited in for assessment in the event of her second telephone contact, (not including routine midwife 6 hourly call checks).

After 24 hours following the insertion of Propess® the midwife should contact the woman and make a telephone assessment. If the woman reports no concerns and is not having painful regular contractions, she may remain at home for a further 4 hours if labour ward is not in a position to proceed with the induction. She must be given a time to return at this point. She must not remain at home longer than 28 hours.

OUTPATIENT ARM: MIDWIVES RESPONSIBILITIES

Prior to discharge from hospital, the woman should have a time to return to the hospital to proceed with syntocinon augmentation. This should be a maximum of 24 hours following artificial rupture of membranes without previous prostaglandins. If the woman labours spontaneously and was originally suitable for home birth or SMBC or either of the alongside Birth Centres, she may choose to continue to birth in those locations as long as no new risk factors have developed. (See section 12 for further information).
RETURNING TO DELIVERY SUITE:

A full maternal and fetal assessment (including CTG) should be carried out including repeat intrapartum risk assessment.

The woman undergoing low risk post dates IOL can be returned to midwifery led care providing the labour establishes following Foley catheter only, one Propess® or one prostin or ARM and otherwise continues to be suitable for low risk care.

Where the Propess® is suspected to have fallen out but is not available for inspection, a speculum examination should be offered to the woman to exclude a retained pessary.

12. FETAL HEART RATE MONITORING DURING INDUCTION OF LABOUR

For ALL women the fetal heart rate should be monitored during the initial induction process as follows:

**Before** Balloon catheter, Propess® or Prostin: CTG for 30 minutes

**After** Propess®: wait for 30 minutes following administration and then CTG for 30 minutes (or start immediately and continue for 60 minutes).

After Balloon catheter or Prostin: Commence CTG immediately following administration and continue for 30-60 minutes.

**ON-GOING FETAL HEART RATE MONITORING IN THE HOSPITAL SETTING:**

After administration of vaginal Propess® or Prostin, when contractions begin, fetal wellbeing should be assessed with CTG.

Maternal pulse and blood pressure should be taken and a CTG recommended if the woman reports any of the following:

- Abdominal pain
- Painful uterine activity
- PV bleeding (other than a show)
- Reduced fetal movements
- Spontaneous rupture of membranes

If there are any changes in the situation a repeat CTG should be performed
**INTERMITTENT AUSCULTATION**

If the woman would otherwise have met the criteria for intermittent auscultation and has only required one intervention to labour (balloon catheter induction, single Propess®, single prostin or artificial rupture of the membranes), she should have an initial CTG if in hospital. If that CTG is confirmed as normal, intermittent auscultation can be used. Women meeting the criteria for intermittent auscultation in this way, can be offered labour and delivery in either of the alongside birth centres. Women who have only had artificial rupture of the membranes, may choose to deliver at home or SMBC. They do not require an initial CTG in labour if there are no other concerns. The standard intermittent auscultation guideline should be followed.

**CONTINUOUS ELECTRONIC FETAL MONITORING**

Women who meet the criteria for CEFM as described in the “Intrapartum Care – Healthy women and their babies” guideline should be offered monitoring in this way. An individualised management plan for on-going fetal heart rate monitoring may have been made in the antenatal clinic, prior to discharge home with balloon catheter induction, out-patient Propess® or on admission to the delivery suite and documented in the health record and this should be followed. This plan may change following repeat risk assessments and the revised plan should be clearly documented in the health record.

**13. ARTIFICIAL RUPTURE OF MEMBRANES**

**ARTIFICIAL RUPTURE OF MEMBRANES FOR LOW RISK WOMEN**

Women who only require artificial rupture of membranes (ARM) to commence their IOL and are otherwise low risk may choose to wait for the onset of labour for up to 24 hours before starting syntocinon augmentation. They may be discharged home using the criteria set out in section 10 and may choose to labour and deliver in SMBC, at home or in either of the alongside birth centres as long as no other risk factors have developed. Women should not be pressured to follow this pathway and we envisage that the absolute numbers of women meeting these strict criteria to be small.

**ARTIFICIAL RUPTURE OF MEMBRANES FOR HIGH RISK WOMEN**

Women who are high risk but have a favourable cervix, may proceed to artificial rupture of the membranes as a primary method of induction. Where there is no meconium, history of group B strep / blood borne viruses or other fetal concerns,
syntocinon augmentation can be delayed for up to six to 12 hours to enable a spontaneous labour to commence.

### AFTER BALLOON CATHETER INDUCTION OR PROPESS®

Following Balloon catheter induction or Propess®, perform Artificial Rupture of Membranes (ARM) whenever possible. Where there is meconium, history of group B strep / blood borne viruses or other fetal concerns, Syntocinon should be commenced after 30 to 120 minutes of catheter or Propess® removal. Otherwise, Syntocinon should be commenced within 12 hours following ARM. Where prostaglandins or a balloon catheter have been used to prime the cervix, it is anticipated that we will offer Syntocinon augmentation sooner than 12 hours (usually within 6-8 hours of ARM). Mobilisation should only be offered following 30 minutes of normal CTG. Every 6 hours, a CTG should be offered to all high risk women who have had ARM and are waiting for Syntocinon. Intravenous Syntocinon infusion should then be used as detailed below.

If ARM is not physically possible after Propess®, a repeat examination by an experienced operator should be carried out and further management should be discussed with the senior registrar or consultant. The routine use of prostin is not sanctioned by this guideline. (See section 14: Failed Induction).

### 14. OXYTOCIN

**INDUCTION OF LABOUR**

Oxytocin can be commenced a minimum of 30 minutes after removal of Propess®. Oxytocin should not be commenced if hyperstimulation, tachysystole or hypertonus are present. Oxytocin should be commenced within 24 hours following ARM.

The process of using oxytocin is described below.

**AUGMENTATION OF LABOUR**

If a woman in spontaneous labour has not progressed satisfactorily (see Intrapartum Care: Healthy women and their babies), augmentation of labour should be considered. This must be discussed with a doctor ST3 or above, who should make an assessment of the woman as appropriate.

The decision to start oxytocin should be taken at ST3 level or above and adequate progress should be confirmed after a maximum of two hours. If there is no progress over this period of time, then Oxytocin should be discontinued and the woman offered delivery by Caesarean section.
Subsequent progress in first and second stage should be maintained. Where progress is not maintained, Oxytocin should be discontinued and the woman should be counselled in favour of delivery by caesarean section.

**CAUTION**

Particular caution should be used where the woman is multiparous or has had a previous caesarean section. Augmentation of labour in the presence of a secondary arrest in either of these circumstances carries significant risk of harm to both mother and / or baby and should only be performed after fetal, abdominal and vaginal assessment by a doctor ST3 or above.

**USING SYNTOCINON**

Assessment prior to commencement of oxytocin for induction or augmentation in labour should include:

- Gestation
- Parity
- Contractions (frequency and duration)
- Blood pressure and pulse
- Fetal lie and presentation
- Fetal heart assessment
- Cervical dilatation

This assessment should be recorded on the ‘Commencement of Oxytocin’ form in mother’s case notes (see appendix 3).

A management plan should be recorded on the ‘Commencement of Oxytocin’ form and filed in the woman’s health records. At induction, this would include a vaginal assessment four hours from regular contractions unless indicated sooner. At augmentation, assessment would usually be recommended 2 hours later.

The documentation of when to stop Oxytocin is included on the commencement of oxytocin form.

**ADMINISTRATION OF SYNTOCINON**

Oxytocin must be administered carefully at a set regime (see appendix) until contraction frequency is 3 - 4 in 10 minutes. Aim for regular, moderate / strong contractions that last for a minimum of 50 seconds but no longer than 60 seconds.
Where the optimum contraction frequency has not been achieved and/or there is inadequate progress in labour an Obstetric review should take place. The Oxytocin dose should only be increased beyond the manufacturers recommended maximum of 20 mU per minute if the desired contraction frequency has not been achieved.

Where the infusion is interrupted for less than 30 minutes for reasons other than uterine hyperstimulation, it can be restarted at the same rate it was prior to interruption. Where the infusion was interrupted for uterine hyperstimulation it should be restarted at a lower rate after hyperstimulation has resolved. The exact rate should be a matter of clinical judgement by an experienced Obstetrician.

Oxytocin must be administered through a rate controlled infusion device. 3 way taps should not be routinely connected.

If giving IV fluids as well as syntocinon, a one way valve must be attached to the fluid infusion line in order to prevent syntocinon backflow.

### MONITORING OF SYNTOCINON

Maternal observations should be carried out as per the Intrapartum Care: Healthy women and their babies’ guidelines. Continuous electronic fetal monitoring should be used. This monitoring should be documented on the partogram and / or case notes.

### STOPPING SYNTOCINON

When Oxytocin is stopped, this should be documented in the health care record. The indications for stopping syntocinon and actions are printed on the ‘Commencement of Oxytocin’ form and are as follows:

- Uterine hyperstimulation
  - Reduce syntocinon infusion rate, consider medical review
- Suspicious CTG
  - Review by ST3 doctor or above
- Pathological CTG
  - Stop syntocinon. Full assessment by ST3 doctor above before restarting.
- Suspected secondary arrest
  - Stop syntocinon. Consider caesarean section.
- Delivery of the baby and placenta
  - Stop syntocinon
15. FAILED INDUCTION

The definition used by NICE for failed induction with prostaglandin is “the failure to induce progressive labour after one cycle of treatment”.

RECOMMENDATIONS ON FAILED INDUCTION

The decisions regarding the management of a ‘failed induction’ must be made in accordance with the woman’s wishes and with regard to the clinical circumstances.

A full assessment of the pregnancy in general, the woman’s condition and fetal wellbeing using electronic fetal monitoring should be made. The decision how to proceed must be made by a senior obstetrician and a plan documented in the health care record. Subsequent management could include:

- A further cycle of vaginal prostaglandin using Dinoprostone (prostin) 3mg tablets every 6 hours (maximum of 2 tablets in total)
  NB: If further prostaglandins are going to be used, this should involve a vaginal examination by a senior midwife, a member of the midwifery induction team or a specialist registrar doctor (grade ST3 or above). Prostin should only be used following Propess® when an artificial rupture of membranes is not possible.
- An attempt with Foley catheter balloon induction if this has not already been carried out.
- Induction could be repeated after an interval agreed by the woman and the clinician. The first repeat dose of the cycle may be administered by a midwife. If a second is required, a VE should be performed by the senior obstetrician.
- Caesarean section

16. THIRD STAGE OF LABOUR

The woman should be advised that physiological 3rd stage is not recommended.

For intramuscular Syntometrine unless otherwise indicated.

17. TRAINING AND EDUCATION

Insertion of the balloon catheter can be undertaken by doctors and midwives who have been LCAT certified or being supervised by a doctor or midwife who has been LCAT certified
### 18. APPENDIX 1: INDUCTION OF LABOUR CATEGORISATION

<table>
<thead>
<tr>
<th>As Soon as Possible Note: If these cannot be carried out due to staffing or capacity, this must be escalated via the ‘Red Flag’ system</th>
<th>---</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IUGR with &lt;fms or no EDF</strong></td>
<td><strong>PET well controlled on meds</strong></td>
</tr>
<tr>
<td><strong>SRM meconium with abnormal CTG/&lt;fms</strong></td>
<td><strong>Diabetes well controlled + no other concerns</strong></td>
</tr>
<tr>
<td><strong>Fulminating PET</strong></td>
<td><strong>2 risk factors for IUFD – (individualised plan needed for monitoring fhr whilst waiting for IOL slot)</strong></td>
</tr>
<tr>
<td><strong>Known BBI/GBS + SRM</strong></td>
<td><strong>APH &gt;37/40 which is &lt;50ml (not a ‘show’)</strong></td>
</tr>
<tr>
<td><strong>Insulin dependent Diabetes with &lt;fms and/or falling insulin requirements</strong></td>
<td><strong>Maternal age &gt;40 yrs at delivery or &lt;20 yrs</strong></td>
</tr>
<tr>
<td><strong>&gt;T+14</strong></td>
<td><strong>Polyhydramnios with AFI&gt;30</strong></td>
</tr>
<tr>
<td><strong>SRM &gt; 24 hrs</strong></td>
<td><strong>When available slot arises T+7-T+12</strong></td>
</tr>
<tr>
<td><strong>Prolonged latent phase</strong></td>
<td><strong>Maternal request</strong></td>
</tr>
<tr>
<td><strong>Awaiting NNU cot which is now available</strong></td>
<td><strong>SPD without mobility aids</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Polyhydramnios AFI 20-30</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Within 24 hrs</th>
<th>---</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T+12, or T+14 if ARM’able</strong></td>
<td><strong>PET well controlled on meds</strong></td>
</tr>
<tr>
<td><strong>&lt;fms @ &gt;T</strong></td>
<td><strong>Diabetes well controlled + no other concerns</strong></td>
</tr>
<tr>
<td><strong>PET not well controlled on meds</strong></td>
<td><strong>2 risk factors for IUFD – (individualised plan needed for monitoring fhr whilst waiting for IOL slot)</strong></td>
</tr>
<tr>
<td><strong>Diabetes poorly controlled</strong></td>
<td><strong>APH &gt;37/40 which is &lt;50ml (not a ‘show’)</strong></td>
</tr>
<tr>
<td><strong>More than 2 risk factors for IUFD</strong></td>
<td><strong>Maternal age &gt;40 yrs at delivery or &lt;20 yrs</strong></td>
</tr>
<tr>
<td><strong>APH &gt;50 mls (or &lt;50mls with other risk factors)</strong></td>
<td><strong>Polyhydramnios with AFI&gt;30</strong></td>
</tr>
<tr>
<td><strong>OC + &lt;fms, or bile acids ≥40 or ALT ≥110</strong></td>
<td><strong>When available slot arises T+7-T+12</strong></td>
</tr>
<tr>
<td><strong>Home IOL following Propess / balloon</strong></td>
<td><strong>Maternal request</strong></td>
</tr>
<tr>
<td><strong>Persistent &lt;fms &lt;41/40 (i.e. more than x2 episodes with individualised care plan)</strong></td>
<td><strong>SPD without mobility aids</strong></td>
</tr>
<tr>
<td><strong>Previous SB (SB should be considered as fetal loss &gt;24/40)</strong></td>
<td><strong>Polyhydramnios AFI 20-30</strong></td>
</tr>
<tr>
<td><strong>PPROM as per individualised care plan</strong></td>
<td><strong>When available slot arises T+7-T+12</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Within 48 hrs</th>
<th>---</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PET well controlled on meds</strong></td>
<td><strong>SPD needing mobility aids</strong></td>
</tr>
<tr>
<td><strong>Diabetes well controlled + no other concerns</strong></td>
<td><strong>Mental health issues</strong></td>
</tr>
<tr>
<td><strong>2 risk factors for IUFD – (individualised plan needed for monitoring fhr whilst waiting for IOL slot)</strong></td>
<td><strong>OC no other risk factors (bile acids &lt;40, ALT &lt;110)</strong></td>
</tr>
<tr>
<td><strong>APH &gt;37/40 which is &lt;50ml (not a ‘show’)</strong></td>
<td><strong>Late booker with unclear EDD and no other risk factors as per individualised care plan</strong></td>
</tr>
<tr>
<td><strong>Maternal age &gt;40 yrs at delivery or &lt;20 yrs</strong></td>
<td><strong>IVF without other risk factors</strong></td>
</tr>
<tr>
<td><strong>Polyhydramnios with AFI&gt;30</strong></td>
<td><strong>LFGA using GROW chart &gt;90th Centile</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Within 7 days</th>
<th>---</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPD needing mobility aids</strong></td>
<td><strong>Mental health issues</strong></td>
</tr>
<tr>
<td><strong>Mental health issues</strong></td>
<td><strong>OC no other risk factors (bile acids &lt;40, ALT &lt;110)</strong></td>
</tr>
<tr>
<td><strong>Late booker with unclear EDD and no other risk factors as per individualised care plan</strong></td>
<td><strong>Late booker with unclear EDD and no other risk factors as per individualised care plan</strong></td>
</tr>
<tr>
<td><strong>IVF without other risk factors</strong></td>
<td><strong>LFGA using GROW chart &gt;90th Centile</strong></td>
</tr>
<tr>
<td><strong>LFGA using GROW chart &gt;90th Centile</strong></td>
<td><strong>When available slot arises T+7-T+12</strong></td>
</tr>
</tbody>
</table>
## 19. APPENDIX 2: OXYTOCIN INFUSION REGIME:

### OXYTOCIN INFUSION REGIME

Oxytocin 10iU mixed with 0.9% Sodium Chloride to a volume of 50 ml. Administer via syringe pump.

*(use lowest dose possible titrating to 3-4/10 contractions)*

<table>
<thead>
<tr>
<th>Time after starting:</th>
<th>Infusion rate ml/hour:</th>
<th>Oxytocin dose mU/min:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 min</td>
<td>0.3</td>
<td>1</td>
</tr>
<tr>
<td>30 min</td>
<td>0.6</td>
<td>2</td>
</tr>
<tr>
<td>60 min</td>
<td>1.2</td>
<td>4</td>
</tr>
<tr>
<td>90 min</td>
<td>2.4</td>
<td>8</td>
</tr>
<tr>
<td>120 min</td>
<td>3.6</td>
<td>12</td>
</tr>
<tr>
<td>150 min</td>
<td>4.8</td>
<td>16</td>
</tr>
<tr>
<td>180 min</td>
<td>6.0</td>
<td>20</td>
</tr>
</tbody>
</table>

**ONLY USE DOSES BELOW AFTER REVIEW BY SENIOR REGISTRAR OR CONSULTANT** where desired contraction frequency not achieved

<table>
<thead>
<tr>
<th>Time after starting:</th>
<th>Infusion rate ml/hour:</th>
<th>Oxytocin dose mU/min:</th>
</tr>
</thead>
<tbody>
<tr>
<td>210 min</td>
<td>7.2</td>
<td>24</td>
</tr>
<tr>
<td>240 min</td>
<td>8.4</td>
<td>28</td>
</tr>
</tbody>
</table>

Increase Oxytocin every 30 min in the first stage until contractions 3-4:10

Increase every 15 minutes if Oxytocin commenced in the second stage of labour providing the fetal heart rate is satisfactory

Monitor fetal wellbeing by continuous electronic fetal monitoring
## 20. APPENDIX 3: COPY OF COMMENCEMENT OF OXYTOCIN FORM

<table>
<thead>
<tr>
<th>Patient details/label</th>
<th>Gestation: /40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Parity:</td>
</tr>
<tr>
<td>Unit No:</td>
<td>Previous C/S? Y/NO</td>
</tr>
<tr>
<td>DoB:</td>
<td></td>
</tr>
</tbody>
</table>

Please complete this assessment chart prior to starting an Oxytocin infusion in the first or second stage of labour. It must be completed by ST3 or above.

**PLEASE PRINT IN BLACK INK.**

### Indication for Oxytocin:

<table>
<thead>
<tr>
<th>Prescribed by:</th>
<th>Date prescribed:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Decision made by:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maternal assessment BEFORE commencing Oxytocin:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal pulse: bpm</td>
</tr>
<tr>
<td>Maternal BP: mm Hg</td>
</tr>
<tr>
<td>Frequency of contractions: /10 minutes</td>
</tr>
<tr>
<td>Duration of contractions: sec</td>
</tr>
<tr>
<td>Cervical dilatation: cm</td>
</tr>
</tbody>
</table>

### Maternal assessment AFTER commencing Oxytocin:

<table>
<thead>
<tr>
<th>Fetal assessment BEFORE commencing Oxytocin:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fetal heart rate: bpm</td>
</tr>
<tr>
<td>Fetal lie:</td>
</tr>
<tr>
<td>Fetal presentation:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fetal assessment AFTER commencing Oxytocin:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please enter assessments of CTG in case notes.</td>
</tr>
</tbody>
</table>

### When to Stop Oxytocin:

<table>
<thead>
<tr>
<th>Possible secondary arrest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop Oxytocin and consider delivery by Caesarean Section.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Abnormal fetal heart rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop Oxytocin and full assessment by SpR or above before Oxytocin is restarted</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-reassuring fetal heart rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review by SpR or above</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Uterine hyperstimulation (contractions 5 or more in 10 minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce Oxytocin and review by SpR or above</td>
</tr>
</tbody>
</table>

### Action plan:

Signature of Consultant/SpR completing assessment form:............. Date and time:.............

Name:.........................

---

**Induction of Labour V6**

**Authors:** Induction of labour Guideline working party

**Written:** March 2005

**Reviewed by Task and Finish Group**

**Contact:** L Matthews Clinical Risk and Quality Standards Midwife

**Last Review:** April 2019

**Approved by:** Maternity Service Governance Group

**Next Review:** April 2022

**Guideline Register No:** C131/2005

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### 21. APPENDIX 4: CHECK LIST FOR WOMEN GOING HOME WITH PROPESS

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Achieved</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Booked under midwife led care and no risk factors have been identified</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between 41 weeks and 40+13 weeks gestation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above 18 years of age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has a BMI of 35 or below</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are no language barriers and she has a good understanding of English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Para 3 or less and has no history of precipitate labour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has not had any previous uterine surgery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lives within 30 minutes (average travel time) of the hospital, has transport and access to a mobile ‘phone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attends with an adult and must remain in the company of an adult.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No current safeguarding alerts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal Consent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation Scan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal Observations (meows of 0, 1 or more will require obstetric review)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abdominal Palpation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTG performed prior to examination for 30 minutes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vaginal Examination (Bishop score of 6 or less)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTG following insertion of Propess for 30-60 minutes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
22. APPENDIX 5: PATHWAY FOR WOMEN WITH PREVIOUS CAESAREAN SECTION

Woman with 1 previous LSCS, no medical comorbidities

Attends Birth Choices Clinic

Wants repeat LSCS at 39wks
Refer to Gen Obs for booking and consent at 32wks (approx)

Wants VBAC
Does not want IOL, prefers LSCS (at T+12)

Considering IOL
Birth choices MW to fill in LSCS booking form for T+12

Book Gen Obs appt for 40-41 weeks
Consultant assessment for suitability of IOL

IOL inappropriate: consent to proceed with CS
IOL appropriate: book IOL, cancel LSCS

Wants VBAC
Does not want IOL, prefers LSCS (at T+12)

Refer to Gen Obs for booking and consent at 36 wks (approx)

Birth choices MW to fill in LSCS booking form for T+12

Book Gen Obs appt for 40-41 weeks
Consultant assessment for suitability of IOL

IOL inappropriate: consent to proceed with CS
IOL appropriate: book IOL, cancel LSCS

Woman with 1 previous LSCS, no medical comorbidities

Attends Birth Choices Clinic

Wants repeat LSCS at 39wks
Refer to Gen Obs for booking and consent at 32wks (approx)

Wants VBAC
Does not want IOL, prefers LSCS (at T+12)

Considering IOL
Birth choices MW to fill in LSCS booking form for T+12

Book Gen Obs appt for 40-41 weeks
Consultant assessment for suitability of IOL

IOL inappropriate: consent to proceed with CS
IOL appropriate: book IOL, cancel LSCS

22. APPENDIX 5: PATHWAY FOR WOMEN WITH PREVIOUS CAESAREAN SECTION

Woman with 1 previous LSCS, no medical comorbidities

Attends Birth Choices Clinic

Wants repeat LSCS at 39wks
Refer to Gen Obs for booking and consent at 32wks (approx)

Wants VBAC
Does not want IOL, prefers LSCS (at T+12)

Considering IOL
Birth choices MW to fill in LSCS booking form for T+12

Book Gen Obs appt for 40-41 weeks
Consultant assessment for suitability of IOL

IOL inappropriate: consent to proceed with CS
IOL appropriate: book IOL, cancel LSCS

Please note that this may not be the most recent version of the document. The definitive version is in the Policy and Guidelines Library.
Introduction

You have been given this information sheet as you may be offered balloon induction of labour when you come for your induction procedure.

We recommend that you also read the University Hospitals Leicester Induction of Labour leaflet. It is not intended to replace the discussion between you and your midwife or doctor, but may act as a starting point for discussion.

What is Induction of Labour?

In order for a baby to be born, the cervix (the neck or opening to the womb) has to shorten, soften and open and there must be contractions. Your womb has a powerful muscular wall that tightens and then relaxes, these contractions gradually open your cervix. In most pregnancies this starts naturally between 37 – 42 weeks and is called ‘spontaneous labour’. Induction of labour is a process used to encourage labour to start artificially.

What will happen?

When you come to the induction bay, the midwife will introduce themselves and discuss everything with you to make sure you understand the procedure. Please feel free to ask any questions or voice any concerns or anxieties. We are here to help at all times.

When you arrive, the midwife will do a full antenatal check on your baby and you. Your baby’s heartbeat will be monitored using a cardiotograph (CTG) machine that gives a paper recording of the heartbeat. You will have a vaginal examination to determine how favourable your cervix is to break your waters (Artificial Rupture of Membranes). If your cervix is not favourable then one of the methods below will be used.

At busy times, the start of the induction process may be delayed for up to 48 hours.
Cervical Ripening Balloon Catheter

We are offering you induction with a balloon catheter. This is used in other hospitals but is a change in practice in Leicester. The advantage of this method of induction is that it has minimal side effects. It avoids the risk of the womb contracting too regularly which can occur with standard, currently used treatment, and due to the lack of medication involved more women are able to go home during the first part of the induction process.

The procedure involves a catheter (a soft tube) being inserted into your cervix. A speculum will be inserted (like at a smear test) and the catheter will be pushed into the opening of the cervix. The catheter has a balloon near the tip and when it is in the right place the balloon is filled with sterile water. The bottom of the catheter will be secured to your leg. The catheter stays in place for 24 hours, with the balloon putting gentle pressure on your cervix. The pressure should soften and open your cervix enough to start labour or to be able to break the waters around your baby.

Going home with the Cervical Ripening Balloon Catheter

An outpatient induction of labour:

Your midwife or doctor will assess if you are suitable for outpatient induction of labour and discuss this with you.

When possible, this will reduce the amount of time you will need to stay in hospital before your labour begins. This makes the process of induction as close as possible to going into labour naturally.

During the time you are at home, you can do things as you would normally, for example, showering, bathing or walking. However, please avoid intercourse. After going to the toilet please wash your hands, make sure the catheter is clean and change underwear regularly.

If you have any of the following:

Bleeding from the vagina
Contractions
Concerns about the baby’s movements
You feel unwell
The waters around the baby break
The balloon falls out

Please call Labour Ward. A midwife will talk with you and advise you what you need to do.

What happens when the Catheter is removed?

The balloon catheter may fall out by itself as the cervix opens or if you go into labour. Alternatively, it will be taken out the next day. The midwife will remove the water inside the balloon using a syringe at the outside end of the catheter, and then gently pull the tube out.

After this, the midwife will break your waters and then if your contractions do not start by themselves, a hormone ‘drip’ will be used to start your labour.

www.leicestershospitals.nhs.uk
What if I don’t want mechanical induction

The standard treatment will continue to be available and you may choose to have prostaglandins (Propess/Prostin) to open the cervix. For more details, please read the Induction of Labour leaflet.

Can there be any complications or risks?

Cervical Ripening Balloon Catheter

The procedure can be uncomfortable but it should not be painful. There is a very small risk of infection. The person inserting the catheter may be undergoing training to insert this, but will always be appropriately supervised.

Unlicensed Use

You need to be aware that although Foleys catheters are widely used all around the world to induce labour, the company have not sought a license for this indication. There have been many research trials that have shown that this is a safe, effective method of induction. If you would prefer not to have this treatment, you have the option of using a prostaglandin pessary instead.

Prostaglandin (Propess® / Prostin®)

Inserting the prostaglandin pessary can be uncomfortable but should not be painful. Prostaglandin can cause soreness in and around the vagina. It can also cause strong contractions, which can be painful. Having these contractions does not always mean you are in labour. Your midwife will discuss ways to help you manage this and may offer you dihydrocodeine tablets.

On rare occasions prostaglandins can cause the uterus to contract too frequently and this may affect the pattern of your baby’s heartbeat. This is usually treated by giving a drug that helps the uterus to relax, however if the uterus continues to contract too frequently, an emergency caesarean section may be necessary.

What happens if induction of labour fails?

In a small number of cases induction of labour is not successful following repeated attempts. You can discuss your management with the consultant obstetrician so that a plan for birth can be put into place. It may be that a caesarean section is recommended.

For further information go to: www.leicestermaternity.nhs.uk

and

For further advice and support, visit the NHS Choices website: www.nhs.uk or call 111 for non-emergency medical advice.
<table>
<thead>
<tr>
<th>CONTACT AND REVIEW DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guideline Lead (Name and Title)</td>
</tr>
<tr>
<td>Executive Lead</td>
</tr>
<tr>
<td>Details of Changes made during review:</td>
</tr>
</tbody>
</table>

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