A Norfolk and Waveney LMNS Shared Clinical Guideline for Induction of Labour

Document Control:

For Use In:	Maternity Departments of JPUH, NNUH and QEH		
Search Keywords	Antenatal, Induction, Induction of Labour, IOL, Intrapartum		
Document Author:	LMNS Practice Innovation Midwife, LMNS Transformation Lead Midwife, NNUH AN/PN Matron, NNUH AN Lead Consultant Obstetrician		
Document Owner:	LMNS - Maternity Departments at JPUH, NNUH and QEH		
Approved By:	Maternity Clinical Guidelines Committee (NNUH) NMCP Forum		
Ratified By:	NMCP Board		
Approval Date:	N&NUH – 24/11/23 QEH – 15/11/23 JPUH – 10/11/23	**Date to be reviewed by:** This document remains current after this date but will be under review	December 2026
Implementation Date:	N/A		
Reference Number:	NNUH -7601		

Version History

Version	Date	Author	Reason/Change
V1.0	June 2022	LMNS Practice Innovation Midwife, LMNS Transformation Lead Midwife AN Lead Consultant Obstetrician	To originate document
V1.1	October 2022	Transformation Lead Midwife AN Lead Consultant Obstetrician	Additions regarding process and Propess delivery system
V2.0	November 2023	E Wiskin LMNS	New template. Clarified processes following removal/expelling of propess. Delay definition.

			Management following propess and two prostins

Distribution Control

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust Intranet.

Consultation

The following were consulted during the development of this document:

Initially a GAP analysis was conducted with all 3 trusts Induction of Labour Guidelines against the NICE 2021 Inducing Labour Guideline. In forming the joint guideline there has been a merger of all 3 trust guidelines to ensure compliance with NICE guidance.
Following this a working group with trust consultants was formed to develop and agree guidance before submitting the joint guideline to each trust governance.

Monitoring and Review of Procedural Document

The document owner is responsible for monitoring and reviewing the effectiveness of this Procedural Document. This review is continuous however as a minimum will be achieved at the point this procedural document requires a review e.g. changes in legislation, findings from incidents or document expiry.

Relationship of this document to other procedural documents

This document is a standard operating procedure applicable to James Paget University Hospital, Norfolk and Norwich University Hospital and The Queen Elizabeth Hospital. Please refer to local Trust's procedural documents for further guidance, as noted in Section 5.

Inclusivity statement

We recognise maternity services will be accessed by women, gender diverse individuals and people whose gender identity does not align with the sex they were assigned at birth. Therefore, we believe delivery of care must at all times be appropriate, inclusive and sensitive to the needs of everyone. For the purpose of this guideline, the words "woman", "women" and "mother" will be used to include all pregnant and birthing people.

In our language we will aim to add and not take away, taking into account the importance of preserving women-centred language as well as including language for those who do not identify as a woman (Royal College of Midwives, 2023)

A Norfolk and Waveney LMNS Shared Clinical Guideline for Induction of Labour

Contents Page

We recognise maternity services will be accessed by women, gender diverse individuals and people whose gender identity does not align with the sex they were assigned at birth. Therefore, we believe delivery of care must at all times be appropriate, inclusive and sensitive to the needs of everyone. For the purpose of this guideline, the words “woman”, “women” and “mother” will be used to include all pregnant and birthing people....2

Quick reference Guide to IOL Timings....5

1.Introduction 7

1.1.Rationale 7

1.2.Objective 7

1.3.Glossary 8

2.Responsibilities 8

3.Processes to be followed:....8

3.2 Methods and Process of IOL 9

3.2.1Membrane Sweeping....9

1.1.Monitoring the Fetus....13

1.2. Monitoring of Maternal Condition 14

3.1.1.Women undergoing induction should have admission observations including: 14

4.Management of Specific Clinical Circumstances related to IOL....14

4.1.Prolonged Pregnancy....14

- increased likelihood of caesarean birth....15

- increased likelihood of the baby needing admission to a neonatal intensive care unit....15

- increased likelihood of stillbirth and neonatal death....15

Following this discussion offer IOL from 41+0 based on the woman’s choice....15

4.2.Preterm Rupture of Membranes at Term....15

4.3.Pre-Labour Ruptured Membranes at Term....16

4.4.Previous LSCS/Uterine Scar....16

4.5.Pre-Eclampsia....17

5.Management of Complications of Induction of Labour....19

5.1.Unsuccessful IOL....19

5.2.Hyperstimulation 19

5.3.Cord Prolapse....19

5.4.Uterine Rupture....20

5.5.Management of Women Declining IOL....20

6.1.1. A delay in induction of labour is defined as: 20

6.References 21
7.Monitoring Compliance 21
8.Appendices.....22
9.Appendices.....22
10.Equality Impact Assessment (EIA).....29

Quick reference Guide to IOL Timings

This table summarises broad recommendations from other documents: please consult the relevant guidance.

Reason for IOL	Suggested timing
Prolonged pregnancy	Offer IOL from 41 weeks
PROM	Offer immediate IOL or within 24 hours
PPROM	IOL from 37 weeks onwards. Offer IOL from 34 weeks onwards if GBS +ve.
Previous LSCS	Based on individual discussion on timing. Only to be induced with balloon catheter method/ARM and +/- oxytocin.
Fetal growth restriction	<3rd centile with no concerning features initiate IOL at 37+0. Consider less than 37 weeks if additional concerning features. 3rd – 10th centile with no high-risk features, initiate IOL at 39+0.
Maternal diabetes	Type 1 or type 2 diabetes: IOL between 37+0 – 38+6 weeks GDM on diet: No later than T+6 GDM on medication or any other complications: from 38 weeks as per consultant recommendation
Intrauterine death	As per guideline
Maternal request	IOL for maternal request would not generally be recommended prior 39 weeks. IOL for maternal request requires discussion and decision with a consultant
Obstetric Cholestasis	Bile acids 19-39 by 40 weeks Bile acids 40 -99 by 38-39 weeks Bile acids >100 35-36 weeks NB: Peak bile acid results should be used for planning timing of IOL
Multiple pregnancy	Uncomplicated DCDA twins: IOL at 37 weeks MCDA: 36 weeks
Polyhydramnios	Consider the clinical picture, abdominal examination and descent of fetal head when timing induction for polyhydramnios.
Fetal Macrosomia	Discuss IOL with women whose babies are plotting over the 90th centile at 36 weeks. IOL should be timed for when the baby is predicted to plot at 4kg on their customised growth chart. If the EFW is above 5kg (or 4.5kg for diabetics) discuss MOD.

Altered/reduced FM's	IOL for reduced FM's (if only risk factor) not before 39+0
Pelvic girdle pain	IOL for this reason before 40 weeks would not generally be recommended, however the full clinical picture should be taken into account. Use of crutches or a wheelchair may prompt discussion to consider this earlier.
Maternal age	Maternal age more than or equal to 40 years: Offer IOL from 39 weeks
Precipitate Labour	Do not routinely offer induction of labour to women with a history of precipitate labour to avoid a birth unattended by healthcare professionals. Ensure adequate antenatal information is provided on signs of labour and appropriate attendance to the maternity unit.
Pre-eclampsia	Mild- moderate PET: recommend IOL after 37 weeks. Severe PET: Before 34 weeks delivery may be indicated with severe refractory hypertension. Recommend between 34 – 36+6 if PET with severe hypertension.
Gestational hypertension	Offer IOL after 37 weeks, timing to be agreed by woman and consultant
Mental heath	Individualised based on discussion with consultant. In cases where IOL is needed for mental health reasons, aim for 39 weeks if maternal health is stable enough to do so.
Maternal Medicine cases	Individualised plan based on discussion with consultant.

A Norfolk and Waveney LMNS Shared Clinical Guideline for Induction of Labour

1. Introduction

1.1. Rationale

The requirement for Induction of labour (IOL) arises from circumstances in which it is believed that the outcome of the pregnancy will be better if it is artificially interrupted rather than being left to follow its natural course.

A joint guideline across the LMNS should standardise the care women receive across Norfolk and Waveney, including those women who are transferred between trusts during the process of IOL.

The indication for induction and gestation should be documented at the time the decision for induction is made, by the decision maker.

IOL is dramatically increasing in the UK with 34% of women being induced in the period 2022-2021 (NHS digital, 2021). The National Institute of Clinical Excellence (NICE) recommends a women centred approach, with every woman having the opportunity to make informed decisions about their care and follow department of health advice on consent.

The National Maternity and Perinatal Audit (NMPA) which investigated the association between rates of induction of labour and emergency caesarean section in each hospital in England with the risks of stillbirth, admission to a neonatal unit and use of mechanical ventilation in babies born at term. Findings showed that hospitals that had a higher induction of labour rate had a lower risk of stillbirth and mechanical ventilation of babies born after 37 completed weeks of gestation. For each 5%-point increase in induction there was a decrease in the risk of term stillbirth by 9% and mechanical ventilation by 14%. There was no evidence of an association between the hospitals' emergency caesarean section rate and risk of adverse perinatal outcome (Gurol-Urganci et al 2022).

1.2. Objective

This guideline has been created in line with current evidence available on induction of labour (IOL) with the aim of providing guidance for the three trusts of Norfolk and Waveney LMNS on the following:

- Clinical indications for induction of labour
- Appropriate place and timings for induction of labour
- Care pathways offered to women undergoing induction of labour, including methods used for induction.
- Management for if induction of labour is declined.
- Management of complications of induction of labour

1.3. Glossary

The following abbreviations have been used within this document:

Term	Definition
IOL	Induction of Labour
CTG	Cardiotocograph
LMNS	Local Maternity and Neonatal System
NICE	National Institute of Clinical Excellence
NMPA	National Maternity and Perinatal Audit
BS	Bishop Score
PROM	Prolonged Rupture of Membranes
LSCS	Lower Segment Caesarean Section
PET	Pregnancy Induced Hypertension
EFW	Estimated Fetal Weight
GDM	Gestational Diabetes
MOD	Mode of Delivery
DCDA	Dichorionic Diamniotic Twins
MCDA	Monochorionic, Diamniotic Twins

2. Responsibilities

All health care professionals working within the obstetric unit should adhere to the guidance.

3. Processes to be followed:

3.1 Venue for IOL

3.1.1 All inductions of labour should be commenced on each trust's appropriate antenatal ward/ delivery suite.

3.1.2 Low risk women being induced with 10mg Propess should be offered outpatient induction of labour if they meet the criteria outlined below (see 4.2 Methods and processes of IOL for guidance) where following their post procedure CTG they are discharged home until readmission for the next review. Discuss with the woman the benefits and risks of returning home and respect her decision.

Criteria for Outpatient IOL

No significant maternal or fetal risk factors – if in doubt please discuss with consultant on call

Gestation greater than 37 weeks

Singleton pregnancy

Cephalic presentation

Chooses to have outpatient induction of labour.

Independent transport available and lives within an acceptable journey time for the woman and with agreement to return by car.

Adult > 18 years old to accompany woman home and to stay at home with woman until labour occurs or until up to 24 hrs after Propess/Balloon Catheter insertion with planned return to trust.

Has a home or mobile telephone – but not a shared line

No safeguarding concerns.

No verbal communication concerns.

Normal pre and post procedure CTG

3.1.3 Ask the women to contact the maternity unit or triage:

- when contractions begin, or
- if her membranes rupture, or
- if she develops bleeding, or
- if she has any other concerns, such as reduced or altered fetal movements, excessive pain or uterine contractions, side effects or loss of the pessary/ balloon.
- advise her that Propess needs to be removed by 24 hours to reduce risk of hyperstimulation.
- to retain the Propess once removed, place in the marsupial bag and bring back in with them and give to staff; this allows us to confirm that the two parts are complete – document this in the maternal records and for the Propess to be disposed of in clinical waste.

3.2 Methods and Process of IOL

The following will discuss the recommended process of Induction of Labour in different circumstances.

3.2.1 Membrane Sweeping

Offer membrane sweeps at antenatal visits after 39 weeks. Offer additional membrane sweeps if first does not work.

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.

3.2.2 Bishop Score

All women should have a Modified Bishop score (or Calder Score) calculated at the commencement of IOL. The Bishop score is a numerical value obtained by doing a vaginal examination, and is based on the dilation, effacement (or length), position and consistency of the cervix and the station of the head with respect to the ischial spines of the pelvis. A score of 7 or more generally indicates that the cervix is ready to dilate, (previously the terms 'ripe' or 'favourable' were widely used) and when there is a high chance of spontaneous labour, or response to interventions made to induce labour. For the purposes of this guideline, a Bishop score of less than or equal to 7, or a score greater than 7, was used to help determine choice of pharmacological or mechanical methods to induce labour.

3.2.3 Methods of IOL

The available evidence does not support the following non- pharmacological methods for induction of labour:

- Herbal supplements
- Acupuncture
- Castor oil
- Hot baths
- Sexual Intercourse
- Enemas
- Homeopathy*

*There is a postdates complimentary therapy clinic at the QEH which local audit has shown to be of benefit to women.

Method of IOL for Primiparous (intact membranes) [appendix 1]

- Following vaginal examination, if the bishops score is <7 then 10mg Propess should be inserted into the posterior fornix for 24 hours. This should be removed after 24 hours or if the woman establishes in labour or shows any signs of IOL complications.
- In cases of SROM whilst the Propess is insitu:
    - If the Propess falls out with SROM, it should not be reinserted
    - A CTG should be commenced to ascertain fetal wellbeing
    - If the Propess remains insitu and there is no uterine activity the Propess can remain insitu up to the 24 hours from insertion whilst awaiting Oxytocin on Delivery suite
    - If the Propess remains insitu and there is regular uterine activity, a vaginal examination using an aseptic technique should be carried out with consent to ascertain if in active labour. The

Propess should be removed if BS>7. Continuous CTG should be commenced.

- If following 24 hours of Propess the bishops score remains <7, 3mg Prostin should be administered into the posterior fornix for 6 hours. It is appropriate for up to 2 Prostin administrations to be given before registrar review.
- If the bishops score remains <7 following the 2nd Prostin, a vaginal examination should be performed to ascertain bishop score at 6 hours post administration of the 2nd Prostin (this can be performed by a midwife). If the Bishop score remains <7, a discussion between the patient and the registrar/consultant should to confirm and document a plan for the rest of the induction process.
    - Ensure discussion includes a discussion of the off licence prescribing.
    - It is appropriate to consider a 3rd or 4th Prostin.
    - It is appropriate to consider a 12-hour break.

Manufacturers guidance stipulate that Propess should be removed at the time SROM. Anzeljc and Mujezinovic (2023) have published the results of a randomised control trials supporting Propess as a safe and effective option for inducing labour where premature rupture of membranes at term has occurred in both primigravid and Multigravida patients.

Method of IOL for Primiparous (ruptured membranes) [appendix 2]

- Women should be offered expectant management for up to 24 hours or immediate IOL. (See 4.3 Prelabour rupture of membranes at term)
- Upon commencing induction, if the cervix is found to have a bishops score of <7 then 3mg Prostin should be administered into the posterior fornix.
- After 6 hours of Prostin the women will be suitable for +/- forewater ARM and +/- oxytocin infusion on delivery suite.
- Generally, a second Prostin would not be recommended in this circumstance.

Method of IOL Multiparous (no uterine scar, intact membranes) [appendix 3]

- Following vaginal examination, if the bishops score is <7 the women should be offered induction with 10mg Propess for 24 hours. The women may have an outpatient IOL with Propess insitu if clinically suitable.
- If the woman prefers a non-pharmacological method, then mechanical induction via foleys balloon catheter should be attempted for 24 hours (or until the catheter falls out).
- If the bishops score remains <7 after 24 hours of Propess or 24 hours of balloon catheter insertion. The Prostin induction regime can be commenced (2x 3mg Prostin, 6 hours apart before further registrar review).
- If the bishops score remains <7 following 2 Prostin, a 3rd or 4th Prostin is an option (is not within manufactory guidance) and should be discussed with the women face to face by a registrar. Consideration of a pause may be

appropriate at this stage following registrar review and discussion with the woman.

- In cases of SROM whilst the Propess is insitu:
    - If the Propess falls out with SROM, it should not be reinserted.
    - A CTG should be commenced to ascertain fetal wellbeing.
    - If the Propess remains insitu and there is no uterine activity the Propess can remain insitu up to the 24 hours from insertion whilst awaiting Oxytocin on Delivery suite
    - If the Propess remains insitu and there is regular uterine activity, a vaginal examination using an aseptic technique should be carried out with consent to ascertain if in active labour. The Propess should be removed if BS>7. Continuous CTG should be commenced.

Manufacturers guidance stipulate that Propess should be removed at the time SROM. Anzeljc and Mujezinovic (2023) have published the results of a randomised control trials supporting Propess as a safe and effective option for inducing labour where premature rupture of membranes at term has occurred in both primigravid and Multigravida patients.

Method of IOL Multiparous (no uterine scar, rupture membranes) [appendix 4]

- Women should be offered expectant management for up to 24 hours or immediate IOL. (See 4.3 Prelabour rupture of membranes at term)
- Once commencing induction, the woman should be offered +/- forewater ARM and +/- oxytocin infusion on delivery suite.

Method of IOL Multiparous (uterine scar, ruptured membranes) [appendix 4]

- Women should be offered expectant management for up to 24 hours or immediate IOL. (See 4.3 Prelabour rupture of membranes at term)
- Once commencing induction, the woman should be offered +/- forewater ARM and +/- oxytocin infusion on delivery suite.

Method of IOL Multiparous (uterine scar, intact membranes) [appendix 5]

- Following vaginal examination, if the bishops score is <7 the women should be offered induction with a non-pharmacological method of a mechanical induction via foleys balloon catheter. The catheter should be left insitu for up to 24 hours or until the catheter falls out.
- If the bishops score remains <7 after falling out or 24 hours of balloon catheter insertion, then a registrar examination should be requested to determine if a forewater ARM is possible.
- If an ARM is possible this should be conducted on delivery suite with appropriate CTG monitoring available. Following 4 hours of mobilisation if

labour has not established oxytocin infusion should be offered as per trust protocol for a scarred uterus.

Propess Insertion/Removal

- When inserting Propess that the Batch number of the Propess is documented in the maternal records/drug card.

- Discuss and show the woman what the Propess Delivery System consists of two parts. (i) a plastic piece of polymer which swells in the presence of moisture (ii) retrieval system consisting of netting and tape

- In the event that the Propess falls out, the women should be asked to retain the Propess to give to staff; this allows us to confirm that the two parts are complete – document this in the maternal records.

- Propess needs to be removed by 24 hours to reduce risk of hyperstimulation.

- Ensure all Propess that is removed is checked by staff to confirm that both parts are complete, and document in maternal records.

- Dispose of Propess in the clinical waste

- Should a propess be lost or not able to be confirmed as complete, a doctor's review should be sought to explore a Speculum and/or Ultrasound to ensure and check there is not a retention of the Propess drug delivery system.

N.B

- Oxytocin can be commenced within 30 minutes of Propess being removed

- Oxytocin must not be commenced within 6 hours of Prostin administration

- Women should be advised that if they have an ARM, they can choose whether to have an oxytocin infusion, or delay starting this, but it may mean labour takes longer and there may be an increased risk of neonatal infection.

1.1. Monitoring the Fetus

3.4.1. Prior to commencing induction all women should undergo an abdominal palpation to confirm position, presenting part and engagement of the fetus. (NB: at NNUH all women s should receive a V-scan to confirm presentation). If there are any concerns about malpresentation or a high presenting part this should be escalated to the obstetric team for review and USS prior to induction commencement.

3.4.2. All women undergoing induction should have an admission CTG for 30 minutes or more prior to commencement of IOL, unless a computerised CTG is available in which case the CTG should be discontinued once the criteria have been

met. Abnormal Antenatal CTGs should be escalated for an obstetric review prior to IOL assessment.

3.4.3. Following insertion of any prostaglandin or mechanical method of IOL a CTG should be recorded for 30 minutes or more to ensure fetal wellbeing (not computerised). Abnormal CTGs should be escalated for an obstetric review.

3.4.4. A CTG should be conducted prior to any further reviews during the IOL process, and always before insertion of any further prostaglandin. A minimum of 2 CTGs a day should be carried out for each woman (unless outpatient IOL).

3.4.5. Women will only require further CTGs if it has been requested by the Consultant or if they experience:

- Abdominal pain
- Painful uterine activity
- PV bleeding
- Reduced fetal movements
- Spontaneous rupture of membranes

1.2. Monitoring of Maternal Condition

3.1.1. Women undergoing induction should have admission observations including:

- Maternal pulse
- Respirations
- Blood pressure (MAP where necessary)
- Temperature
- Oxygen saturations
- Urinalysis

3.5.2. Women who do not have any maternal risk factors require twice daily observations prior to established labour. All maternal observations should be appropriately documented onto a MEOWS chart. Any deviations should be escalated appropriately.

3.5.3. Women with complications such as hypertension, diabetes, SROM etc will have a minimum of 4 hourly observations during the induction of labour process.

3.5.4. All women must be VTE assessed.

3.5.5. All women respond differently to the process of induction. Clinicians should be aware of this and be responsive to what women are reporting.

4. Management of Specific Clinical Circumstances related to IOL.

4.1. Prolonged Pregnancy

4.1.1. Give women with uncomplicated pregnancies every opportunity to go into spontaneous labour.

4.1.2. Explain to women that labour usually starts naturally before 42+0 weeks, based on the gestational age estimated by their dating scan (see table 1)

4.1.3. Using the information in below table, explain to women that some risks associated with a pregnancy continuing beyond 41+0 weeks may increase over time and these include:

- increased likelihood of caesarean birth

- increased likelihood of the baby needing admission to a neonatal intensive care unit

- increased likelihood of stillbirth and neonatal death.

Following this discussion offer IOL from 41+0 based on the woman's choice.

stational (weeks)	Proportion of spontaneous labours that started at this gestational age	Cumulative proportion of spontaneous labours that started by this gestational ag
weeks l under	2.4%	2.4%
-0 to -6 weeks	5.3%	7.7%
-0 to -6 weeks	5.1%	12.8%
-0 to -6 weeks	12.1%	24.9%
-0 to -6 weeks	25.4%	50.3%
-0 to -6 weeks	32.5%	82.8%
-0 to -6 weeks	16.2%	99.0%
-0 weeks l over	0.9%	100%

4.2. Preterm Rupture of Membranes at Term

4.2.1. If a woman has preterm prelabour rupture of membranes, do not carry out induction of labour before 34+0 weeks unless there are additional obstetric indications (for example, infection or fetal compromise).

Offer expectant management until 37+0 weeks.

4.2.2. If a woman has preterm prelabour rupture of membranes after 34+0 weeks, but before 37+0 weeks, discuss the options of expectant management until 37+0 weeks or induction of labour with her. When making a shared decision, take into consideration the following factors:

- risks to the woman (for example, sepsis, possible need for caesarean birth)
- risks to the baby (for example, sepsis, problems relating to preterm birth)

- local availability of neonatal intensive care facilities
- the woman 's individual circumstances and her preferences

4.2.3. If a woman has preterm prelabour rupture of membranes after 34+0 weeks (but before 37+0 weeks) and has had a positive group B streptococcus test at any time in their current pregnancy, offer immediate induction of labour or caesarean birth.

4.3. Pre-Labour Ruptured Membranes at Term

4.3.1. Offer women with PROM at term (at or after 37+0) a choice of:

- expectant management for up to 24 hours, or
- induction of labour as soon as possible.

4.3.2. Discuss the benefits and risks of these options with the woman and consider their individual circumstances and preferences. Discussion should also inform the woman that immediate induction will only happen when clinical priority allows, and this may not always be within 24 hours.

4.3.3. For women who choose expectant management after prelabour rupture of the membranes at term (at or after 37+0 weeks), offer induction of labour if labour has not started naturally after approximately 24 hours.

4.3.4. Respect the woman's decision if they choose to wait for spontaneous onset of labour for over 24 hours after prelabour rupture of membranes at term. Discuss the woman s options for birth from this point onwards with them.

4.3.5. If a woman has prelabour rupture of membranes at term (at or after 37+0 weeks) and has had a positive group B streptococcus test at any time in their current pregnancy, offer immediate induction of labour or caesarean birth.

4.4. Previous LSCS/Uterine Scar

4.4.1. Advise women who have had a previous caesarean birth that:

- induction of labour could lead to an increased risk of emergency caesarean birth
- induction of labour could lead to an increased risk of uterine rupture
- the methods used for induction of labour will be guided by the need to reduce these risks (for example, by using mechanical methods).
- some methods used for induction of labour may not be suitable (for example, both dinoprostone and misoprostol are contraindicated in women with a uterine scar).

4.4.2. 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.

4.4.3. Consider the woman's circumstances and preferences and record the discussions and plan in the woman's notes.

4.4.4. 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.

4.4.5. Evidence shows there is no increased risk of hyperstimulation when using mechanical methods for induction of labour (including osmotic cervical dilators and balloon catheters). Balloon catheters were also effective at promoting vaginal birth within 24 hours and did not appear to markedly increase the risk of other adverse outcomes.

4.4.6. If women request induction of labour this should be offered via foleys balloon catheter induction for up to 24 hours.

4.5. Pre-Eclampsia

4.5.1. Consider IOL:

- Mild- moderate: recommend after 37 weeks.
- Severe: Before 34 weeks delivery may be indicated with severe refractory hypertension. Recommended between 34 – 36+6 if PET with severe hypertension with appropriate monitoring.

(NB: Severe pre-eclampsia defined as severe hypertension that does not respond to treatment or is associated with ongoing or recurring severe headaches, visual scotomata, nausea or vomiting, epigastric pain, oliguria, as well as progressive deterioration in laboratory blood tests such as rising creatinine or liver transaminases or falling platelet count, or failure of fetal growth or abnormal Doppler findings)

4.6 Maternal Request/ Pelvic Girdle Pain

4.6.1. IOL for maternal request should not be routinely offered. Requests should be considered only after discussing the benefits and risks with the woman, considering the individuals' circumstances and preferences.

4.6.2. IOL for pelvic girdle pain before 40 weeks would not generally be recommended, however the full clinical picture should be taken into account. Use of crutches or a wheelchair may prompt discussion to consider this earlier.

4.7 Suspected Fetal Macrosomia

4.7.1. Discuss IOL with women whose babies are plotting over the 90th centile at 36 weeks. IOL should be timed for when the baby is predicted to plot at 4kg on their customised growth chart.

4.7.2. Discuss the options with the woman and consider their preferences.

4.7.3. Discuss the following risks when having discussions:

- IOL reduces risk of shoulder dystocia compared with expectant management
- IOL increases risk of third- and fourth-degree tears compared with expectant management
- The risk of perinatal death, brachial plexus injury or need for emergency caesarean section is the same between IOL and spontaneous labour

4.7.4. If the EFW is above 5kg (or 4.5kg for diabetics) discuss mode of delivery.

4.8 Breech Presentation

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

4.8.2. Consider induction of labour for babies in the breech position if:
- birth needs to be expedited, and
- external cephalic version is unsuccessful, declined, or contraindicated, and
- the woman chooses not to have a planned caesarean birth. Discuss the benefits and risks associated with induction of labour with the woman.

4.9 Fetal Growth Restriction

4.9.1. Do not induce labour if there is fetal growth restriction with confirmed fetal compromise. Offer caesarean birth instead.

4.9.2. If measuring below the 3rd centile with no concerning features initiate IOL at 37+0. Consider less than 37 weeks if additional concerning features.

4.9.3. If measuring between 3rd – 10th centile with no high-risk features, initiate IOL at 39+0.

4.10 History of Precipitate Labour

4.10.1. Do not routinely offer induction of labour to women with a history of precipitate labour to avoid a birth unattended by healthcare professionals. Ensure adequate antenatal information is provided on signs of labour and appropriate attendance to the maternity unit.

4.11 Diabetes

4.11.1 See trust diabetes guideline.

5. Management of Complications of Induction of Labour

5.1. Unsuccessful IOL

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

5.1.2. If induction is unsuccessful, discuss and agree a plan for further management with the woman, including whether they would like further attempts at induction, considering the clinical circumstances and their preferences.

5.1.3. 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

5.2. Hyperstimulation

5.2.1. If uterine hyperstimulation occurs during induction of labour:

- carry out a fetal assessment, including CTG
- carry out maternal observations and document on a MEOWS chart
- do not administer any more doses of medicines to induce labour and remove any vaginal pessaries or delivery systems if possible
- escalate appropriately to the obstetric team
- consider tocolysis

5.3. Cord Prolapse

5.3.1. Take the following precautions to avoid the adverse effects of cord prolapse, which may occur if labour is induced:

- before induction, abdominally assess the level and stability of the fetal head in the lower part of the uterus at or near the pelvic brim
- during the preliminary vaginal examination, obstetricians and midwives should palpate for umbilical cord presentation and avoid dislodging the baby's head Inducing labour
- Ensure to perform a CTG during induction after the membranes have ruptured if the presenting part is not stable and not well-applied to the cervix. In this situation, discuss the risks and benefits of induction of labour with the woman, and if necessary, consider caesarean birth.

- If the presenting part stabilises and the CTG is normal, use intermittent auscultation unless there are clear indications for a further CTG.

5.4. Uterine Rupture

5.4.1. All healthcare professionals should be aware of the signs of uterine rupture:

- fetal bradycardia,
- variable decelerations,
- evidence of hypovolemia,
- loss of fetal station (detected during cervical examination), and
- severe or constant abdominal pain

5.4.2. In case of suspected uterine rupture findings should be immediately escalated to the obstetric team, CTG commenced or continued and intravenous access gained.

5.4.3. If uterine rupture is suspected carry out an immediate category 1 caesarean birth.

5.5. Management of Women Declining IOL

5.5.1. An individual management plan should be formed when induction of labour is declined. Health professionals should respect the woman's decisions and discuss further care with them.

5.5.2. When a woman declines induction of labour the risks of not being induced should be discussed.

5.5.3. Women declining induction must have an individual management plan by the obstetric registrar/consultant regarding the pregnancy.

5.5.4. The individual management plan should be documented in the maternal records and when over 42 weeks gestation include CTGs and USS to assess liquor volume and umbilical artery doppler.
5.5.5 The women should be offered an appointment with a consultant obstetrician and birth choices clinic/consultant midwife.

6.0. Management of Delayed Induction of Labour

6.1.1. A delay in induction of labour is defined as:

- Deferred start date (by maternity services)
- A delay of 6 hours or more of in the IOL procedure (Prostaglandin/ARM/Oxytocin)

If either of these delays are identified - follow flowchart Appendix 6 *Process for delay in induction of labour*

When RAG rating of Induction of Labour is required for either prioritising workload (ie next ARM) or considering delay or deferment. The decision-making tool (See appendix 7) can be used to RAG rate the priority of an Induction of Labour helping with the decision-making process. Deferment of an IOL that is in the Red or Amber category should be discussed with a registrar or consultant and discussion documented.

NB: When communicating IOL delays with the DS coordinator/Manager of the day ensure updates for all IOL delays are discussed in one phone call (instead of multiple) at pre agreed times eg: 00:00/06:00/12:00/18:00

6. References

National Institute of Health and Care Excellence. (2021). *Inducing Labour: NG207.*
NHS Digital. (2021). *NHS Maternity Statistics, England – 2020-21*. NHS England.

Gurol-Urgaci I, Jardine J, Carroll F, Muller P, Relph S, Lara L, Webster K, Oddie S, Hawdon J, Harris T, Khalil A, Van Der Meulen J. (2022). *Use of induction of Labour and emergency caesarean section and perinatal outcomes in English maternity services: a national hospital-level study*. British Journal of Obstetrics and Gynaecology.

Anzeljc V, and Mujezinovic F, (2023) A randomised controlled trial comparing induction of labour with the Propess vaginal system to he Prostin vaginal tablet in premature rupture of membranes at term. Journal of Clinical medicine 12(1), 174 JCM | Free Full-Text | A Randomised Controlled Trial Comparing Induction of Labour with the Propess Vaginal System to the Prostin Vaginal Tablet in Premature Rupture of Membranes at Term (mdpi.com)

7. Monitoring Compliance

Key elements	Process for Monitoring	By Whom (Individual / group /committee)	Responsible Governance Committee /dept	Frequency of monitoring
Documented on removal of propess that intact	Review of maternal electronic records	Delegation from matron for in-patients	O&G clinical governance	Review of 10 sets of electronic records per month
IOL performed within guidance	Ongoing review as cases are booked through CDS coordinator	Delegation from intrapartum led midwife	O&G clinical governance	Ongoing

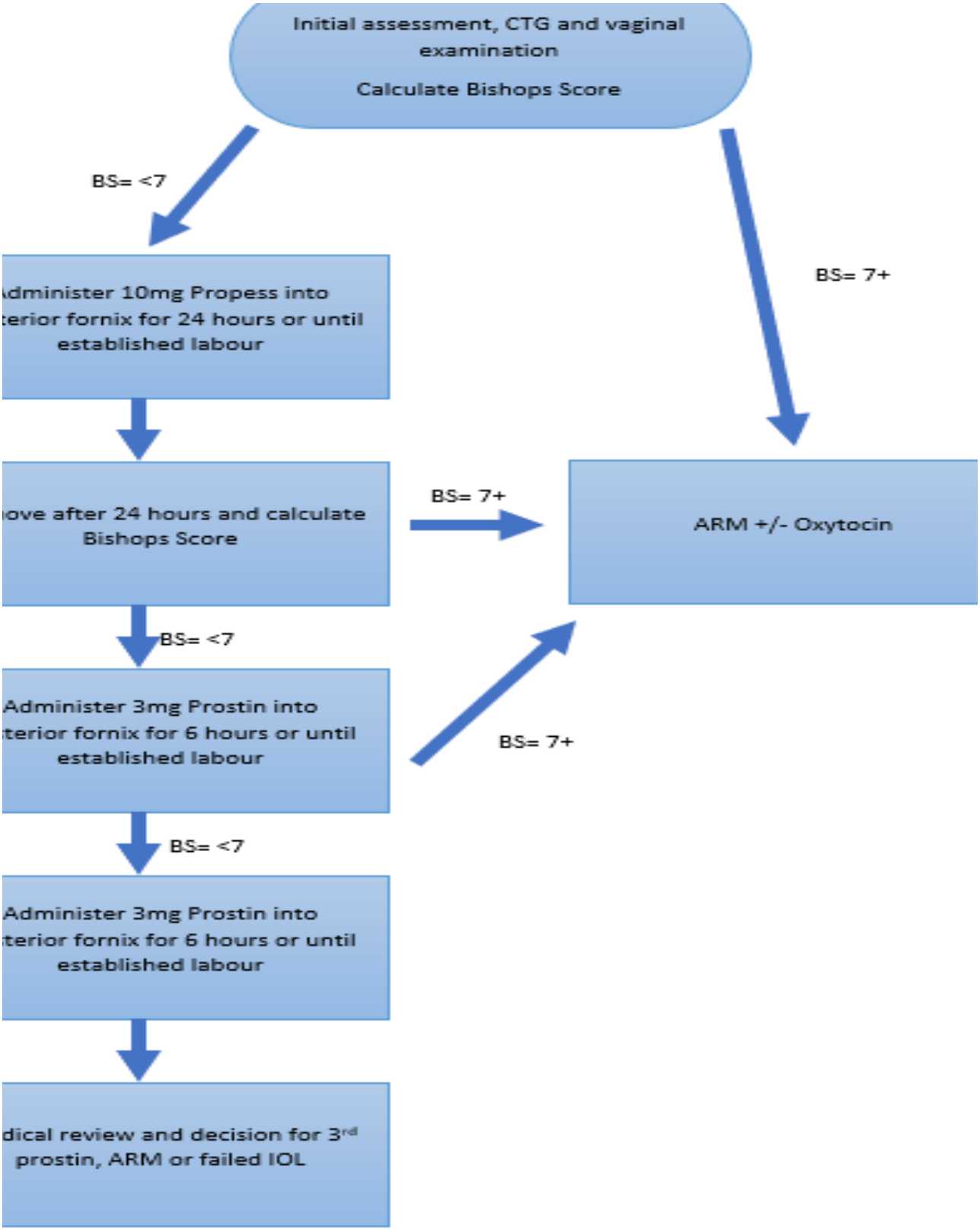
The audit results can be discussed at discussed at O&G clinical governance meeting to review the results and recommendations for further action. Any assigned recommendations/actions must be SMART (specific, measurable, achievable, realistic and timely.)

8. Appendices

Appendix 1 – Primiparous intact membranes
Appendix 2 – Primiparous ruptured membranes
Appendix 3 – Multiparous intact membranes
Appendix 4 – Multiparous ruptured membranes, with or without scarred uterus
Appendix 5 – Multiparous scarred uterus, intact membranes
Appendix 6 – Process for delay in induction of labour
Appendix 7 - Decision making tool to aid RAG rating of Induction of Labour

9. Appendices

Appendix 1. Primiparous (intact membranes)


Initial assessment, CTG and vaginal examination
Calculate Bishops Score
BS= <7
BS= 7+
dminister 10mg Propess into terior fornix for 24 hours or until established labour
ove after 24 hours and calculate Bishops Score
BS= 7+
ARM +/- Oxytocin
BS= <7
Administer 3mg Prostin into terior fornix for 6 hours or until established labour
BS= 7+
BS= <7
Administer 3mg Prostin into terior fornix for 6 hours or until established labour
dical review and decision for 3rd prostin, ARM or failed IOL

Appendix 2. Primiparous (ruptured membranes)

Re-Calculate Bishop Score after each Prostin.

Appendix 3. Multiparous (intact membranes)

Re-Calculate Bishop Score after each Prostin.

Appendix 4. Multiparous (ruptured membranes, with or without uterine scar)

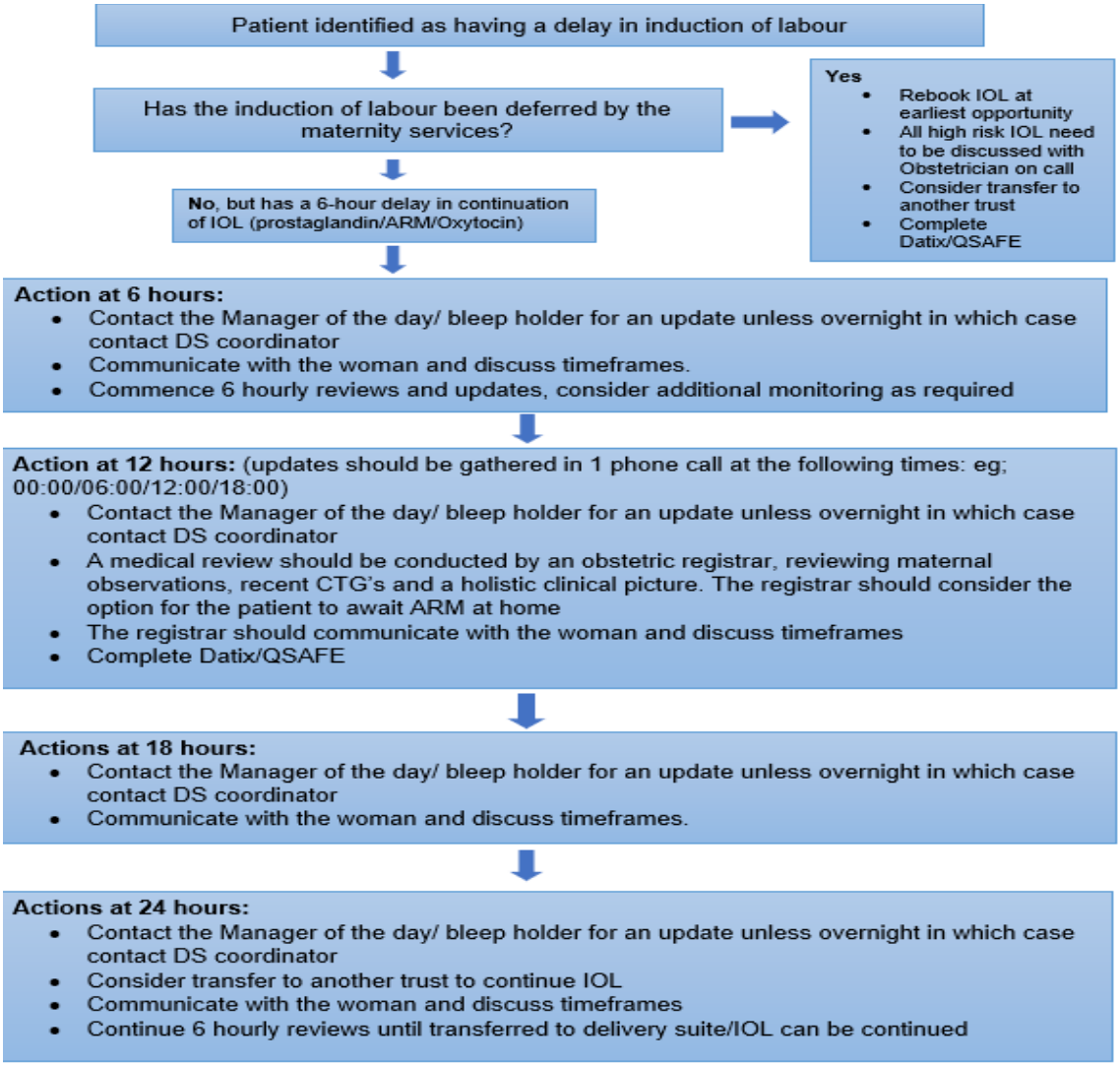
Appendix 5. Multiparous (scarred uterus, intact membranes)

Re-Calculate Bishop Score after each Prostin.

Appendix 6. Process for delay in induction of labour

NB:

- As a system consider liaising with other trusts as to capacity.
- Ensure that red flags pertaining to delay with starting for IOL is also raised.



Appendix 7. Decision making tool to aid RAG rating of Induction of Labour

Red	Yellow	Green
• 42 + weeks gestation • Sub-optimal Doppler • Severe PET • SGA at or below the 3rd centile or with abnormal dopplers • APH at term • PPROM at term (at or > 37 weeks) • PPROM preterm with other indications • IDDM LGA/ poor glycaemic control • Severe Polyhydramnios • Rhesus Iso immunisation • Obstetric cholestasis bile acid > 100 without other risk factors • Obstreic cholestasis with bile acid 40-10 with other risk factors like twins, PIH or diabetes • Reduced fetal movements with other risk and ultrasound features including abnormal Doppler, CTG, lack of movements on ultrasound • Previous SB with recurring condition, (severe placental problems, eg DVM, MFD) • Other	• 40+10 • Mild PIH • GDM, with or without metformin, well controlled. • Reduced growth velocity, SGA above 3rd centile with normal Dopplers, Normal AC • Obstetric cholestasis bile acid 40-100 with no other risk factors • Other	• Maternal request • Postdate pregnancy 41 - 41+2 • Maternal age • IVF with no other risk factors • SPD • LGA without diabetes • Previous C/S without other risk factors • Reduced fetal movements without any other risk factors ie normal PAPPA normal anatomy, uterine artery Dopplers, normal growth according to GAP, normal Dopplers, normal movements visualised on ultrasound scan (regular fetal wellbeing assessments until induction). • Previous still birth without recurring conditions (eg early SB, fetal anomaly) • Other

Rag Rating	Priority Level
	Highest priority
	Medium Priority
	Lower Priority

10. Equality Impact Assessment (EIA)

A Norfolk and Waveney LMNS Shared Clinical Guideline for Induction of Labour

Type of function or policy	Existing

Division	Women's and Children	**Department**	Maternity
Name of person completing form	Emma Wiskin	**Date**	27/07/2023

Equality Area	Potential Negative Impact	Impact Positive Impact	Which groups are affected	Full Impact Assessment Required YES/NO
Race				No
Pregnancy & Maternity				No
Disability				No
Religion and beliefs				No
Sex				No
Gender reassignment				No
Sexual Orientation				No
Age				No
Marriage & Civil Partnership				No
EDS2 – How does this change impact the Equality and Diversity Strategic plan (contact HR or see EDS2 plan)?				

- **A full assessment will only be required if: The impact is potentially discriminatory under the general equality duty**
- **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service**
- **The policy or function/service is assessed to be of high significance**

IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED

The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.