Lothian NHS Board

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Date 02/03/2026
Your Ref
Our Ref 11113

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Dear

FREEDOM OF INFORMATION – MATERNITY POLICIES

I write in response to your request for information in relation to maternity policies

Question:

- Please provide copies of all policies, procedures, local guidelines, clinical pathways, protocols, or written instructions held by NHS Lothian that were in force at any time between the 1st of January 2022 and the present, and that relate to maternity care after 37 weeks of pregnancy, specifically:

  Labour / Intrapartum Care:

  1. Management of suspected ruptured membranes after 37 weeks of pregnancy.
  2. Monitoring of fetal heart rate after 37 weeks of pregnancy, including documents that specify:
     - Which types or patterns of fetal heart rate baseline trends are considered clinically concerning or dangerous; and
     - The criteria, thresholds, or circumstances that require further monitoring, escalation, or intervention.
  3. Guidance on performing membrane sweeps at or after 37 weeks, including:
     - Indications, contraindications, and clinical criteria for offering a sweep;
     - Recommended technique, frequency, and monitoring before or after the procedure;
     - Any circumstances under which sweeps should be avoided or escalated;
     - Written information, advice, or guidance provided to pregnant women regarding sweeps (e.g. leaflets, handouts, consent information, or patient-facing instructions).

  Infection Management in Pregnancy:

  4. Treatment of urinary tract infections in pregnancy, including:
     - Whether antibiotics may be prescribed prior to receipt of urine culture results; and
     - Whether antibiotics may be prescribed as a precaution when culture results are pending.

     Please provide separate documents if different policies apply to first trimester versus full-term pregnancy.
  5. Circumstances in which a pregnant woman should be swabbed for Group B Streptococcus carriage.

Answer:

1.	PROM at Term enclosed
2.	Antenatal fetal monitoring enclosed
3.	Induction of labour enclosed
4.	No guideline has specific written regarding antibiotic treatment and blood cultures.
5.	GBS guideline enclosed

I hope the information provided helps with your request.

If you are unhappy with our response to your request, \you do have the right to request us to review it. Your request should be made within 40 working days of receipt of this letter, and we will reply within 20 working days of receipt. If our decision is unchanged following a review and you remain dissatisfied with this, you then have the right to make a formal complaint to the Scottish Information Commissioner within 6 months of receipt of our review response. You can do this by using the Scottish Information Commissioner's Office online appeals service at www.itspublicknowledge.info/Appeal. If you remain dissatisfied with the Commissioner's response you then have the option to appeal to the Court of Session on a point of law.

If you require a review of our decision to be carried out, please write to the FOI Reviewer at the email address at the head of this letter. The review will be undertaken by a Reviewer who was not involved in the original decision-making process.

FOI responses (subject to redaction of personal information) may appear on NHS Lothian's Freedom of Information website at: https://org.nhslothian.scot/FOI/Pages/default.aspx

Yours sincerely

ALISON MACDONALD
Executive Director, Nursing
Cc: Chief Executive
Enc.

Antenatal Fetal Monitoring
Maternity Services Lothian
Guidelines

NHS Lothian

1. INTRODUCTION:

The purpose of antenatal (CTG) fetal monitoring is to aim to increase identification of babies in utero at increased risk of developing hypoxia and acidaemia and to guide when intervention may be indicated. Human error in ante-partum cardiotocograph (CTG) interpretation has been identified as a significant root cause of stillbirth and serious brain injury.CTG is a screening tool to be used in conjunction with complete clinical picture.

There is currently a mixed picture of National guidance on antenatal fetal monitoring. Recommendations from this guideline have been agreed as from NICE 2019 guideline 'Antenatal care for uncomplicated pregnancies' and NHS England 'Saving Babies' Lives Care Bundle Version 2: a care bundle for reducing perinatal mortality and physiological CTG interpretation.

2. AIM:

The aim of this guideline is to decrease neonatal morbidity and mortality by correct use of antenatal fetal monitoring with reference to CTG interpretation only. This guideline will clarify when antenatal CTG monitoring may be appropriate and aids to interpret the CTG escalation of CTG concerns and actions

3. GUIDELINES:

Indications for antenatal CTG
Commencing an antenatal CTG
Interpreting an antenatal CTG
Suggested actions based on CTG findings

Indications for an antenatal CTG:

- Antenatal CTG monitoring is not routinely recommended unless a particular risk factor is identified (Table 1)
- It may be used to contribute to the assessment of fetal wellbeing from 26 weeks-
- Antenatal CTG monitoring is not indicated prior to 26 weeks gestation unless a consultant plan has been made.

Table 1. *Risk factors indications for antenatal CTG- for example*

Significant Medical Condition	***High risk pregnancy***	***High risk fetus***	***Other***
Diabetes	Multiple pregnancy	Reduced/absent fetal movements	Trauma to the abdomen
Hypertension	Oligo or Polyhydramnios	FGR/SGA	external cephalic version
Pulmonary disease	PIH/PET	Abnormal US/Doppler	Induction with prostaglandins
		Meconium stained liquor	
Cardiac disease	Post-dates >42 weeks	Prematurity	
Thyroid disease	PPROM		
Renal disease	APH		
Autoimmune disease	Suspected preterm labour		
Substance misuse	Abnormal maternal observations (i.e. pulse >110/120; severe Hypertension)		
	Infection/sepsis		

Commencing an antenatal CTG

- Discuss the rationale for commencing the CTG with the woman
- Prior to commencing the CTG, abdominal palpation should be performed and symphyseal fundal height (SFH) plotted on a growth chart when appropriate ie if not plotted within the last 2 weeks.
- Record maternal pulse and document this prior to commencing the CTG.
- Confirm monitor is set to run at 1cms/minute
- Ensure accurate date and time is recorded and a patient CHI sticker is placed in a visible location.
  Advise patients to record fetal movements during the CTG.

- If fetal heart cannot be detected, inform obstetric registrar urgently for review. If there is difficulty finding FH especially in women with pain, bleeding/ SRM/RFM then **emergency call** should be made. If in the community please arrange for urgent transfer to hospital.

Interpreting an antenatal CTG

- The antenatal CTG should be interpreted as part of the overall clinical picture
- An antenatal CTG is either **Normal or Abnormal.** Presence of signs of chronic hypoxia/ 1 non reassuring feature is abnormal.
- An antenatal CTG sticker (appendix 1) can if available be used to assess the CTG and should be placed on the CTG.
- Two qualified staff members should sign off the CTG
- Check if the baseline is appropriate for gestation (i.e. at 40+ weeks babies are more likely to have baseline towards lower end of normal and preterm babies are likely to have baseline ~ 150bpm.)
- Compare baseline from previous CTGs. Rising baseline by more than 10% signifies further attention needed to assess any concerns. Medical review to assess all risk factors and appropriate management plan.

A normal antenatal CTG will have good variability with evidence of sleep and wake patterns (Cycling signifies normal fetal physiology.)

Preterm fetal monitoring:
Understanding the physiology of fetal heart rate and the development of cardiovascular and neurological systems may help to understand the features observed on the CTG. It is important to realize that physiological reserves available to combat hypoxia are less than those available to a term fetus. Hence, a preterm fetus may suffer a hypoxic insult sooner than its term counterpart.
Medical staff should counsel women when instituting continuous electronic fetal monitoring.

- It is normal for baseline to be at the higher end of normal in preterm pregnancies. The baseline for each fetus should be compared with any previous documentations/ recording of fetal heart rates to individualize care. The baseline gradually lowers with advancing gestation as the parasympathetic nervous system develops increasing variability and cycling by 32- 34 weeks.
- Baseline variability is also more obvious as gestation advances.
- Small variable decelerations are commonly seen in gestations under 30 weeks. Accelerations tend to be smaller (10bpm, 10 sec duration) at earlier gestation gradually increasing in amplitude.

Suggested actions based on CTG findings
See Appendix 2 – “Escalation Plan for CTG Findings”
A CTG showing signs of chronic hypoxia should be reviewed urgently (high /normal baseline reduced variability and/ or shallow decelerations).

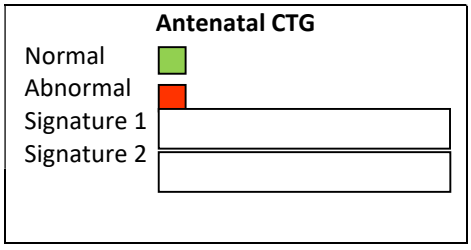
4. ASSOCIATED DOCUMENTS:

Appendix 1 – Antenatal CTG assessment tool
Appendix 2 – Escalation plan for CTG findings

Appendix 1a. – Antenatal CTG assessment tool

Antenatal CTGs			
Gestation: Look at baseline rate in line with gestation- a preterm fetus is likely to have a higher rate than that at term	**Maternal Pulse**: look for increase or signs of infection. Ensure different to FH	**Membranes ruptured?** Date of SRM- If Prolonged elevated level of concern if signs of infection	**Colour of liquor**: If meconium more at risk of chorioamnionitis particularly at < 34 weeks. Blood stained consider abruption
Uterine activity felt by woman: palpate any uterine activity and document	**Present**- If in active established labour analyse as intrapartum CTG with hourly buddy review	**Absent**- Analyse with antenatal CTG sticker	
	Reassuring features	**Non Reassuring features**	
Baseline rate- check all previous CTGs	110 160	<110 or>160	Appropriate for gestational age? a preterm fetus is likely to have a higher rate than that at term
Variability	Between 5 and 25	<5 for 50 minsor>25 for 30 mins or sinusoidal for >10 mins	
Accelerations	Present	Absent >50 mins	Fetal Movements felt?
Decelerations	Absent	Present	
Evidence of cycling? Above 32 weeks	Present	Absent	Cycling becomes more obvious with maturation of nervous system
Overall Impression	Normal CTG	Abnormal CTG (1x non reassuring feature/ chronic hypoxia/ other)	A fetus with Chronic Hypoxia will have reduced variability, raised baseline and possible shallow decelerations
Reason for CTG/ Plan of care	Women on normal pathway of care should not require CTG	Rationale for CTG should be clearly documented	Plan of ongoing care needs to be documented

Appendix 1a. – Antenatal CTG assessment tool stickers



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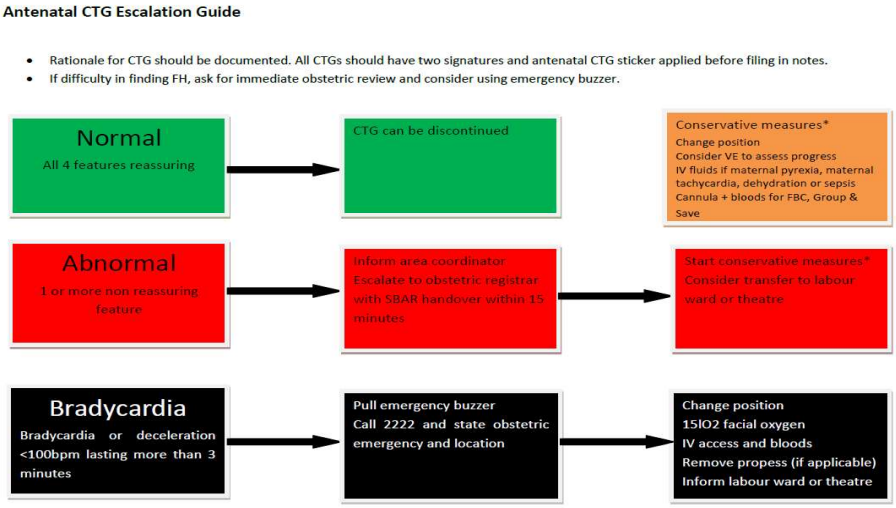
Appendix 2 – Antenatal CTG Escalation Guide



5. REFERENCES:

Hughes R, Aitken E, Anderson J, Barry C, Benton M. Antenatal care for uncomplicated pregnancies. National Institute for Health and Care Excellence. 2008.

NHS England (2019). Saving Babies' Lives Care Bundle Version 2: a care bundle for reducing perinatal mortality. Available from: https://www.england.nhs.uk/wp-content/uploads/2016/03/saving-babies-lives-car-bundle.pdf (Accessed January 2021) Physiological CTG

Karolina Afors, Edwin Chandraharan, "Use of Continuous Electronic Fetal Monitoring in a Preterm Fetus: Clinical Dilemmas and Recommendations for Practice", *Journal of Pregnancy*, vol. 2011, Article ID 848794, 7 pages, 2011

4. AUTHOR/S:

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Author 3:Nirmala Mary

Author 4:Guideline group

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Group B Streptococcus- prevention of early onset disease and intrapartum antibiotic prophylaxis
Maternity Services Lothian
Guidelines

1. INTRODUCTION:

Group B streptococcus (Streptococcus agalactiae) is recognised as the most frequent cause of severe early onset (at less than 7 days of age) infection in newborn infants. Maternal colonisation with Group B streptococcus (GBS) during pregnancy increases the risk of neonatal infection by vertical transmission. A Cochrane review in 2009 has concluded that administration of intrapartum antiobiotic prophylaxis (IAP) during labour has been associated with a reduction in early onset GBS disease but not late-onset disease (>7 days after birth). However, treating all colonised women during labour exposes a large number of women and infants to possible side effects without benefit. These include anaphylaxis, increased medicalisation of labour and the neonatal period and possible infection with antibiotic-resistant organisms.

2. AIM:

To prevent neonatal sepsis with GBS

3. GUIDELINES:

Antenatal Management

Routine bacteriological screening of all women for antenatal GBS carriage is NOT recommended.

Colonisation detected in THIS pregnancy (any locus)

- Annotate on Trak special features
- Specify intrapartum antibiotics
- Antentatal treatment is NOT recommended

Women with previous baby AFFECTED with GBS

- Follow colonisation plan above

Confirmed GBS UTI

- Treat with oral or iv antibiotics as clinically indicated
- Annotate on Trak special features
- Specify intrapartum antibiotics

PREVIOUS maternal colonisation is not an indication for treatment

Intrapartum Management

All women with known GBS colonisation should be offered iv intrapartum antibiotics

Antibiotic prophylaxis specific for GBS is NOT required for women undergoing planned caesarean section in the absence of labour and intact membranes

Any woman with known GBS colonisation presenting with prelabour ruptured membranes should be discussed with senior obstetric staff. In general, immediate augmentation and antibiotic treatment should be offered (depending on gestation/presentation etc)

Planned amniotomy – if performing planned amniotomy on patient with known GBS administer initial dose of antibiotics prior to performing ARM.

If chorioamnitis is suspected, BROAD SPECTRUM antibiotic therapy including an agent active against GBS should replace GBS-specific IAP and induction of labour should be considered.

Women who are pyrexial in labour should be offered BROAD SPECTRUM antibiotic therapy including an agent active against GBS.

There is no evidence that intrapartum vaginal cleansing will reduce the risk of neonatal GBS disease

Intrapartum Antibiotic Prophylaxis Regime

- **3g benzylpenicillin IV as soon as possible after membrane rupture or inset of labour then 1.5g benzylpenicillin 4 hourly until delivery**
- **Clindamycin 900mg IV 8 hourly to those allergic to penicillin**

Management of Baby

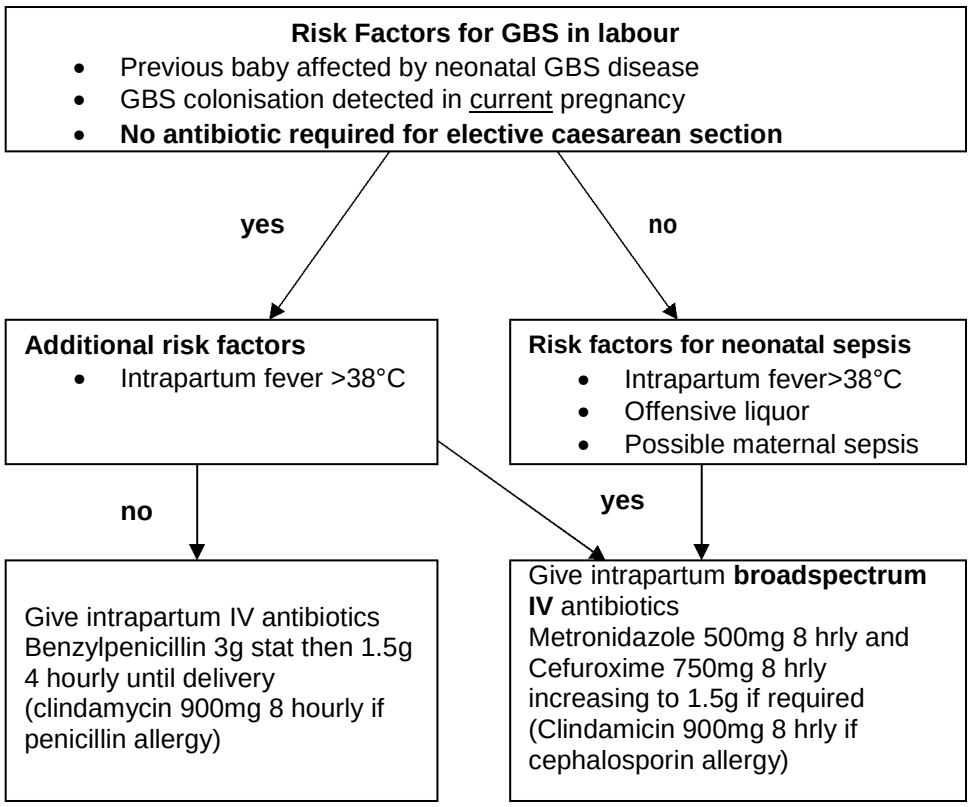
Inpatient observation is recommended for 24 hours

Postnatal Management

There is no evidence to discourage breastfeeding where there are concerns regarding the possible risk of transmission of GBS disease.

(MSL-NewGuideTemp 23.04.09)

Group B Streptococcus Management
And
Intrapartum Antibiotic Prophylaxis



Babies born to mothers with any of the above risk factors should be evaluated clinically for evidence of infection

Clinically well
- Observe 24 hr on ward
- Surface swabs not needed
- NOT for 6 hour discharge

Not clinically well
- **ADMIT and TREAT**
- **Cultures**
- **Antibiotics**

Infants of mothers who have had previous babies AFFECTED by GBS disease and who have NOT received intrapartum antibiotics should have cultures taken and be given IV penicillin for 48 hours until cultures available

4. ASSOCIATED DOCUMENTS:

Maternal Sepsis Guideline (NHS Lothian)
Induction of Labour Guideline (NHS Lothian)

5. REFERENCES:

RCOG Greentop Guideline No:36 " The prevention of Early Onset Group B Streptococcal Disease"

6. AUTHOR/S:

Author 1: Dr Emma Doubal

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Author 3: Dr Kirsty Dundas

Author 4: Lothian maternity guideline group

Author 5:

Author 6:

Induction of labour
Maternity Services Lothian
Guideline

Contents:

Induction of labour – criteria and booking

Introduction:

Induction of labour is the most commonly performed obstetric intervention and associated with increased intervention rates. It is required in around 26% of pregnancies when the risks of continuing the pregnancy outweigh the benefits. This guideline aims to prevent inappropriate induction of labour and provide a standard of care pathway for those induced. In NHS Lothian Cervical Ripening balloon is the first line of induction. Propess can be used for those who do not meet the criteria for a Cervical Ripening balloon or those who choose to be induced using propess.

Staff should ensure women are given time to make decisions after balance and comprehensive discussion about risks and benefits of induction. Induction process can take 24-72 hours. Please provide a supportive environment with options of birthing balls, water immersion and peaceful setting for rest and sleep.

Encourage women to be mobile and active during the process of induction.

Maternal and Fetal Indications:

The decision to undertake IOL in these circumstances needs to be clear and clinically justified. Discussion with an experienced obstetrician and requires an individual documented induction plan.

- Post dates (41+0-42+0)
- Maternal age over 40
- Previous caesarean section
- Preterm Pre labour rupture of membranes
- Prelabour rupture of membranes at term
- Diabetes; PIH/PET/Essential hypertension
- Obstetric cholestasis
- Intrauterine Growth Restriction
- Reduced fetal movements

This list is not exhaustive.

Contraindications to induce labour

Absolute: Any contraindication to vaginal birth: e.g.

- Severe Intra uterine growth retardation with evidence of fetal compromise
- Abnormal fetal lie/presentation (transverse, oblique)
- Placenta praevia

- Active genital herpes infection
- Invasive cervical carcinoma
- Previous classical Caesarean section of myomectomy with breach of cavity
- More than 2 previous caesarean sections
- Absolute Cephalopelvic disproportion (Pelvic Deformity)

Relative:

- Previous Caesarean section x2
- Grand multiparity (Para 6 or more)

All women should have an cervical assessment at 40 weeks which includes the bishop score, offer of membrane sweep, discussion regarding IOL process and provision of the patient information leaflet. All the above information should be documented on Maternity TRAK.

Who can book IOL?

Community and Hospital Midwifery staff are able to organise induction of labour for low risk women who are **Para 3 or less**.

Medical staff would need to authorise induction of labour for high risk women and grand multiparous (Para 4 or more). They must also complete the induction assessment questionnaire on Maternity TRAK.

Booking appointments
To book induction slots phone:

RIE Inpatient: Ward 119 - 0131 242 1194/0131 242 1191 (Outpatients below T+10)
Outpatient: DAU - 0131 242 2656 (Low risk T+10-T+14 P3 or less)

St John's: Ward 11 01506 524111

If Outpatient Induction of labour is being considered ensure that the patient has an appointment for a liquor volume scan prior to attending for induction.

Where does the Induction of labour take place?

Induction of labour can be done as an outpatient if specific criteria are met or as an inpatient. Each induction of labour method will have a specific criteria which will be detailed later. However, the prerequisite for outpatient setting for induction of labour, regardless of method are:

1. Singleton pregnancy
2. Cephalic presentation
3. Availability of private transport
4. Availability of home landline or mobile phone
5. Ability to communicate in English

Hospital Procedure on Admission for Induction of labour

On arrival for induction of labour the midwife should continue the induction assessment questionnaire ensuring that she has completed the risk assessments questions and performed a Modified Bishops Score. If all risk assessment questions are answered 'Yes' and the Modified Bishops Score is <7 then the midwife may administer cervical ripening balloon or Propess (which can be administered under PGD).

If Induction is medically indicated but the patient declines induction then a discussion with a senior obstetrician should take place and an individualised care plan agreed.

Postdates

This is the most common indication aiming at reducing the risk of late stillbirth. There is a small increased risk of stillbirth from 1/1000 to 2-3/1000 pregnancies after 42 weeks. IOL for that indication is offered between 41-42 weeks, when induction reduces perinatal mortality without increasing the caesarean section rate.

Maternal age 40yrs or more at time of booking

In this group the risk of stillbirth is increased and therefore induction of labour at term should be considered. Therefore at term IOL will be discussed and offered and the individualised care plan documented on TRAK.

Previous Caesarean Section

Spontaneous labour is preferred where possible, but when IOL indicated the method will be limited to cervical ripening balloon, membrane sweep +/- amniotomy +/- syntocinon.

All patients should have been seen by an obstetrician antenatally and a full discussion highlighting potential maternal and fetal risks of labour outlined and documented on TRAK.

Maternal Request

Induction of labour should not be routinely offered on maternal request only.The patient should have a discussion with their consultant and the risks and benefits documented. Induction of labour in those circumstances might be considered at or after 40 weeks.

Methods of Induction of labour

1) Membrane sweep

2) Cervical ripening balloon

3) Prostaglandins

4) Amniotomy

See separate guideline for use of oxytocinon.

Women should be advised as to their induction options in the antenatal period and be included in the decision making process for their induction having been given advice and the patient information leaflet.
The aim for induction should always be to use the least intervention needed. Each woman should have an individualised induction plan to optimise her care.

Mechanical Induction of labour with Cervical Ripening Balloon (CRB) is the first line method and should be suitable for most women unless contraindicated or declined by patient.
Each patient should have clearly documented on Maternity TRAK the first line chosen and further management plan should that method fail.

Membrane sweep

There is established evidence that membrane sweeps at term significantly reduce the need for induction. It is thought to be effective by increasing local endogenous production of prostaglandins. Evidence suggests benefit from repeated outpatient membrane sweeps resulting in **increased SVD rate, reduced induction to delivery interval, reduced use of oxytocinon and improved women's satisfaction.**

To perform a sweep, a finger is inserted as high as possible through the internal cervical os and the membranes are swept off the lower pole of the uterus by a complete circular sweep of the finger, once clockwise and once anticlockwise. If the internal os is closed the cervical canal should be 'swept'. During this process a modified Bishops score should be calculated and clearly documented in Maternity Trak. The fetal heart should be auscultated prior to and after the membrane sweep and documented.

At both 40 and 41 weeks women should be offered a vaginal examination for membrane sweep. Additional membrane sweeping may be offered if labour does not start spontaneously. This may be done prior to 40 weeks if authorised by medical staff.

Induction using Cervical Ripening Balloon

The Cook Cervical Ripening Balloon (CRB) is a silicone double balloon catheter with an adjustable-length malleable stylet. The Cook Cervical Ripening Balloon is indicated for mechanical dilation of the cervical canal when the cervix is unfavourable for induction. Pharmacological agents have associated risk of hyperstimulation (3-20%) where as the balloon induction does not cause significant uterine contraction or systemic side effects.

Studies have shown both methods are equally effective with CRB having a slightly shorter insertion to delivery interval, infection rates and no adverse neonatal effects.

The Cook Balloon Device

- Silicone double balloon catheter with stylet
- One balloon in Uterus (inflating valve marked U)
- One balloon in Vagina (inflating valve marked V)
- A blue valve marked S for Stylet
- Each balloon could be filled in with sterile water / saline up to maximum of 80ml
- Single use device supplied in sterile package

Indications

Outpatient use (>= 37 weeks)

Any patient requiring Induction of labour in the absence of fetal or maternal compromise

1. Postdate
2. Gestational Diabetes Mellitis of Type 2 Diabetes with stable blood sugar monitoring
3. Previous Lower Segment Caesarean Section (x1)
4. Previous precipitate labour with prostaglandin use
5. Obstetric Cholestasis
6. Tailing off fetal growth above the 10th centile with normal dopplers and Liquor volume
7. Essential Hypertension or non proteinuric PIH with stable Blood Pressure (medicated or not) and normal bloods
8. Maternal age
9. Symphysis Pubis Dysfunction
10. Reduced Fetal Movement with normal growth and liquor volume

Inpatient use (Any Gestation)

1. Suspected fetal compromise i.e. SGA/oligohydramnios (< 5cm AFI/ <2cm DVP)
2. Type 1 Diabetes
3. Grand Multiparous (Para >=4)
4. Post failed Induction of Labour with prostaglandins
5. Preeclampsia
6. Consultant decision
7. Patient request

Contraindications

1. Non-cephalic fetal presentation
2. Free/ ballotable head
3. Multiple pregnancy
4. Sepsis
5. Active genital herpes infection
6. Ruptured membranes
7. Any contraindication to induction of labour

Who can insert it?

The CRB can be inserted by any healthcare professional (medical or midwifery) who has received the appropriate training

Booking and Admission procedure for CRB IOL (see flowchart 1)

1. IOL questionnaire filled on TRAK
2. Book a slot on Ward 119 (for inpatient) at RIE or DBU at SJH for the desired date and a slot the following day for removal (Minimum 12h; Max 24 Hours).
3. On admission, perform antenatal check:
   a. Full MEWS
   b. Confirm cephalic presentation
   c. CTG to assess fetal wellbeing

Procedure

Most staff will insert Cervical Ripening Balloon digitally under vaginal examination.

Equipment required:

1. Sterile Gloves and lubricating gel
2. 500ml bag of sodium chloride 0.9%
3. Red Filter Needle
4. 2 x 60ml Syringes, 4 x 20ml syringes
5. Red and Green Pen to mark syringes (not mandatory)
6. Wedge available if anticipating difficulty inserting

If unable to insert Cervical Ripening Balloon digitally a Speculum may have to be used to insert the Balloon under direct vision.

If inserting under direct vision

1. Lithotomy poles (Stirrups) – **Not mandatory.**
2. Speculum
3. Sterile Rampley's forceps
4. Sterile aquagel (optional)
5. 500ml bag of sodium chloride 0.9%
6. Red Filter Needle
7. 2 x 60ml Syringes, 4 x 20ml Syringes
8. Light source
9. Pre-packed CRB device

Patient preparation:

1. Procedure discussed with patient and verbal consent obtained
2. Encourage sustainable and comfortable position – consider use of wedge if anticipating difficult insertion
3. Vaginal examination, with consent, to determine if CRB is required
4. Open CRB pack and assemble stylet
5. During vaginal examination maintain hold of cervix using fingers to introduce CRB.

If inserting under direct vision

1. Procedure discussed with patient and verbal consent obtained
2. Place patient in lithotomy position (**Not mandatory**)
3. Open the CRB pack and assemble the stylet if required
4. Insert the speculum in vagina to fully visualise the cervix
5. Clean the cervix with wet gauze/ cotton roll
6. Use Rampley's Forceps to hold cervix in place while inserting stylus

Device placement:

1. Insert the device into the cervix and advance it until both balloons have entered the cervical canal (aquagel can be used as lubricant)
2. If the stylet is used then it should be withdrawn as soon as the 1st balloon is no longer in view or felt if not under direct vision.
3. Inflate the uterine balloon with 40 ml of sodium chloride through the blue valve marked '**U'**
   then pull the device back until the balloon abuts the internal os
4. The vaginal balloon is now visible (or felt) outside the external os. Inflate it with 20 ml of water through the green valve marked **'V'**
5. Remove the speculum
6. Add 40 ml water through valve **U** and 60 ml through valve **V.** The aim is to have 80mls in each balloon
7. If patient uncomfortable: reduce volume of fluid in vaginal balloon first, by 10ml increments
8. Advise use of 2 pairs of underwear – 1 with pad and valves passing through leg hole, then gently fold valves upwards and 2nd pair holding in place.

Post insertion monitoring:

1. Auscultation using sonicaid.
2. If normal, patient can go home and return 12-24 hours later to have it removed. At 12 hour point phone call from Ward 119 at RIE or Labour Ward at St John's to ensure well being. If bed available to return to labour ward for balloon removal. If bed not available at this point, phone call will be made from labour ward at both sites between 12 and 24 hours to notify when bed is available. If Labour Ward not able to accommodate by 24 hour point to return to Ward for balloon removal.
3. Can mobilise, eat and drink at leisure; should pass urine without difficulty. Please ensure can pass urine prior to discharge
4. Patient to contact OTA at RIE or LW at SJH and attend if: RFM, SRM, PV bleed, regular painful contractions (every 5 minutes), pain, CRB falls out, urine retention
5. If urine retention: withdraw 10mls from vaginal balloon until able to pass urine.

CRB removal (see flowchart 2)

- After minimum 12 hours (but no longer than 24 hours).
- Remove sooner if SRM or regular painful contractions >= 4:10 minutes

Procedure

- Check maternal observation
- Deflate both balloons and remove the device
- Allow a maximum of an hour to mobilise and for presenting part to descend
- Perform a VE to assess Bishop Score and suitability for ARM and do a membrane sweep.
- Auscultate Fetal Heart for 1 minute. CTG is not required unless abnormal auscultation
- Advise patient to mobilise
- If favourable for ARM discuss with labour ward for timing of transfer
  Liaise with LW for timing of transfer
- If not favourable for ARM proceed with any pre-agreed plan, or to be reviewed by/discussed with obstetrician for ongoing care

Outpatient induction of labour with Propess

Criteria
Low risk (no significant maternal or fetal risk factors)
Post dates (Term+10-14)
Singleton
Cephalic presentation
Para 3 or less
Bishops score less than 7
No previous uterine surgery or caesarean section
Transport available and lives < 30minute journey
Has a home or mobile telephone
Amniotic fluid index ≥ 5cm (within the last 72 hours) and ≤ 20cm. Intact membranes
Normal pre and post prostaglandin CTGs

Post treatment
After insertion of the Propess® pessary women should remain recumbent for 30 minutes. Thereafter, a 30 minute CTG should be performed. If reassuring, no further monitoring is required unless SRM or uterine activity occurs. Women may go home and be managed on an outpatient basis. Ensure they have the IOL patient information leaflet prior to going home and are advised to contact the relevant hospital if uterine activity occurs, SRM or any other concerns eg. reduced fetal movements, vaginal bleeding and women should be advised to remove the Propess® pessary and **attend the hospital immediately**. Women are asked to contact the hospital by telephone after 12 hours

Inpatient induction of labour with Propess

Where inpatient induction of labour is being undertaken for maternal or fetal reasons the indication should be documented on TRAK.
Prior to the onset of uterine activity the fetal heart should be auscultated as a minimum every 2 hours, when awake. CTG monitoring should commence with onset of regular painful contractions.

Induction of labour for women with pre labour rupture of membranes at term

SEE SEPARATE GUIDELINE

Induction using Propess®

Propess is the second line if Cervical Ripening Balloon cannot be used, or patient preference.

Contraindications to Propess® (as per SPC)

Propess® should not be used in women:

1. When labour has started.

2. When oxytocin drugs are being given.

3. When strong prolonged uterine contractions would be inappropriate such as in patients:

a. who have had previous major uterine surgery, e.g. caesarean section, myomectomy

b. with cephalopelvic disproportion

c. with fetal malpresentation

d. with suspicion or evidence of fetal distress

e. who have had more than three full term deliveries eg a Para 4 or more

f. previous surgery or rupture of the cervix

4. When there is current pelvic inflammatory disease, unless adequate prior treatment has been instituted.

5. When there is hypersensitivity to dinoprostone or to any of the excipients.

6. When there is placenta praevia or unexplained vaginal bleeding during the current pregnancy.

Cautions (for Propess®)

Caution should be exercised in the administration of dinoprostone for the induction of labour in patients with:

- asthma or a history of asthma;
- epilepsy or a history of epilepsy;
- glaucoma or raised intra-ocular pressure;
- compromised cardiovascular, lung, hepatic, or renal function;
- hypertension

If a caution applies then decision to use should be made by a Consultant Obstetrician

Procedure

1. On admission, perform antenatal check:
    a. Full Mews
    b. Confirm cephalic presentation and engagement
    c. CTG to assess fetal wellbeing

2. Vaginal examination to assess the modified Bishop's score.

Score	**0**	**1**	**2**	**3**
Dilatation (cm)	<1	1-2	2-4	>4
Length (cm)	>4	2-4	1-2	<1
Consistency	Firm	average	soft	
Position	posterior	mid/anterior		
Station	-3	-2	-1	at/ below spines

3. Ensure Propess pessary is administered within 20 minutes from removal from freezer.

4. Insert Propess high into the posterior fornix using aquagel, lying transversely

5.After Propess has been inserted the excess tape is placed in the lower part of the vagina to ensure that it can be removed.

6.Women to remain semi recumbent or left lateral for 30 minutes after insertion of pessary

7.If propess falls out and there is no regular contractions and cervix unfavourable then Propess can be re-inserted for remainder of period up to 24 hours maximum

8.Review at 12 hours to assess uterine activity and need for CTG or VE

9.Women should be reviewed and the Propess pessary removed at 24 hours with a cervical assessment.

Side effects of Propess®

Nausea, vomiting and diarrhoea are most commonly reported.
Uterine hypercontractility or hpertonus, uterine hyperstimulation, abruption, rapid cervical dilation, fetal bradycardia / fetal distress.

Other side effects include pulmonary and amniotic fluid embolism, hypertension, bronchospasm/asthma, rash, fever, backache. Vaginal symptoms of warmth, irritation and pain. Genital oedema.
Rarely hypersensitivity reactions including anaphylaxis, uterine rupture ad cardiac arrest and disseminated intravascular coagulation.

Indications for removal of Propess®
Propess should be removed and the woman transferred to the labour ward in the following situations

- Established labour diagnosed
- BS ≥ 7
- There is evidence of uterine tachysystole, hypertonus or hyperstimulation
  Tachysystole = ≥5 contractions in 10 minutes with reassuring CTG
  Hypertonus = painful contraction lasting ≥ 90 seconds with reassuring CTG
  Hyperstimulation = tachysystole or hypertonus with non reassuring CTG
- Concerns about the fetal heart rate /CTG
- Vaginal bleeding
- There is evidence of maternal systemic adverse effect

Management if there is spontaneous rupture of membranes with Propess insitu

Inpatient:
Commence CTG
Assess contractions
If contractions >3:10 minutes then remove Propess, perform a VE to assess cervix and transfer to labour ward if in established labour.
If no contractions leave propess insitu up to a maximum of 12 hours post SRM or 24 hours post initial insertion.
If BS<7 Propess can be left in place until woman can be transferred to labour ward for oxytocinon.
If BS>7 then propess to be removed and transfer to labour ward.

Outpatient:
Patient to telephone hospital
Staff to ask the following questions:
Colour of liquor
Fetal movements
Are the contractions 3 or more in 10 minutes
Ask to attend
If contractions 3 or more in 10 minutes then ask patient to remove propess immediately.

Induction using Dinoprostone tablets

Dinoprostone tablets may be used for induction for women with **Parity 4 and 5** needing prostaglandin induction (only after Consultant Obstetrician review and consideration has been given to balloon induction). It may be used as a 2nd line agent if Propess where amniotomy is not possible (see appendix 3)

Contraindications to Dinoprostone tablet

Dinoprostine is not recommended in the following circumstances:

Same as Propess except

1. Grand multiparity with over 5 previous term pregnancies
2. Women with ruptured membranes

Cautions for dinoprostone

Same as propess

Procedure and Side Effects

Same as propess – follow flow chart (appendix 3)

Induction by Amniotomy

Amniotomy and oxytocin infusion should not be used as the primary method of induction unless there are specific indications eg, grand multiparity, contraindications to vaginal prostaglandin.
Booking and criteria as previously described.

Induction with Oxytocinon will be the first line in following cases

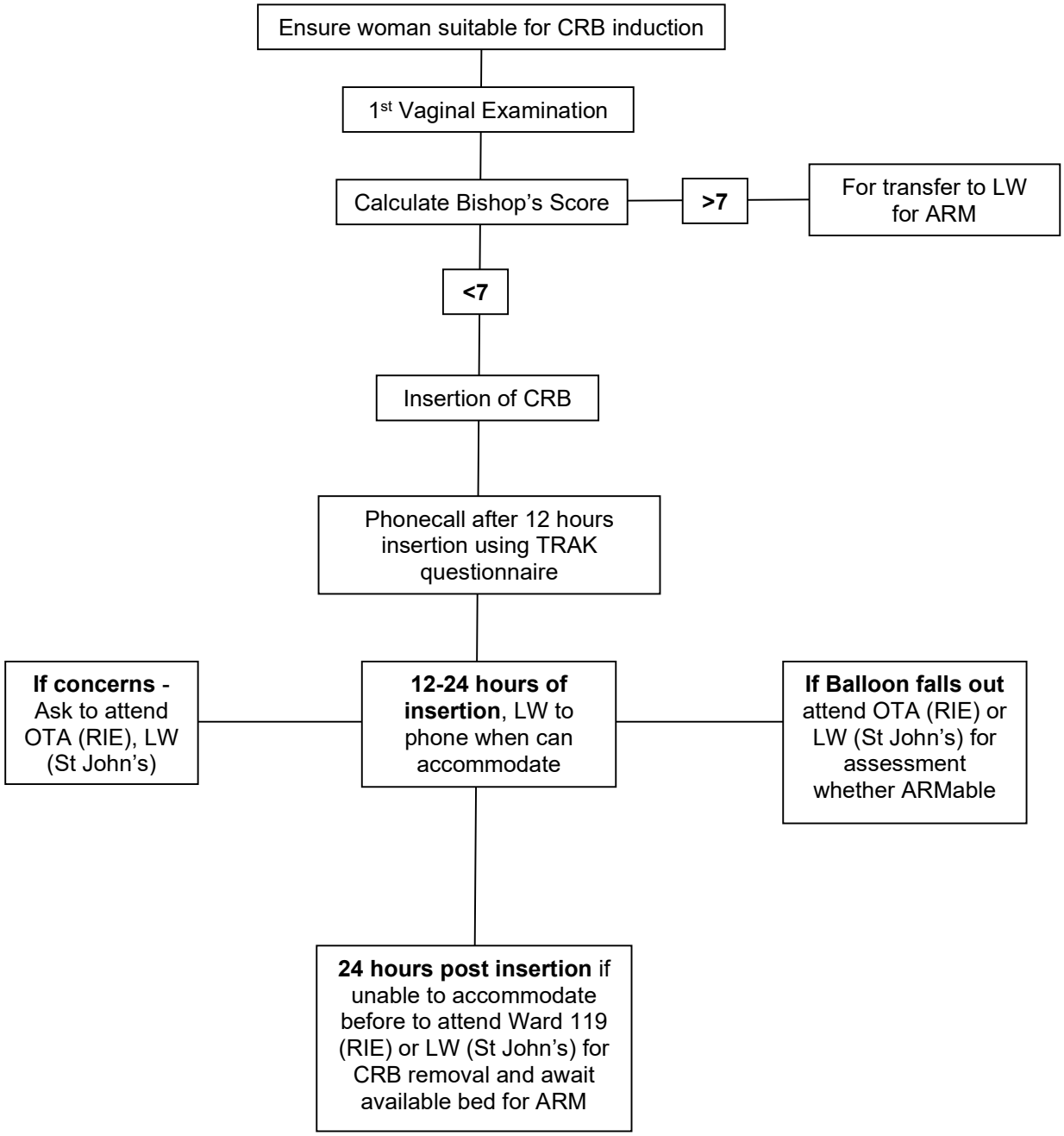
1. Women with SROM and evidence of chorioamnionitis
2. Women with GBS and Pre labour SRM

1. Record the fetal heart rate before amniotomy
2. Record the colour and amount of liquor
3. A fetal heart rate should be obtained immediately following ARM
4. If FHR normal then the woman should be encouraged to mobilise
5. In primigravida with no uterine activity commence oxytocin immediately after amniotomy
6. In parous women, assess uterine activity after 2 hours

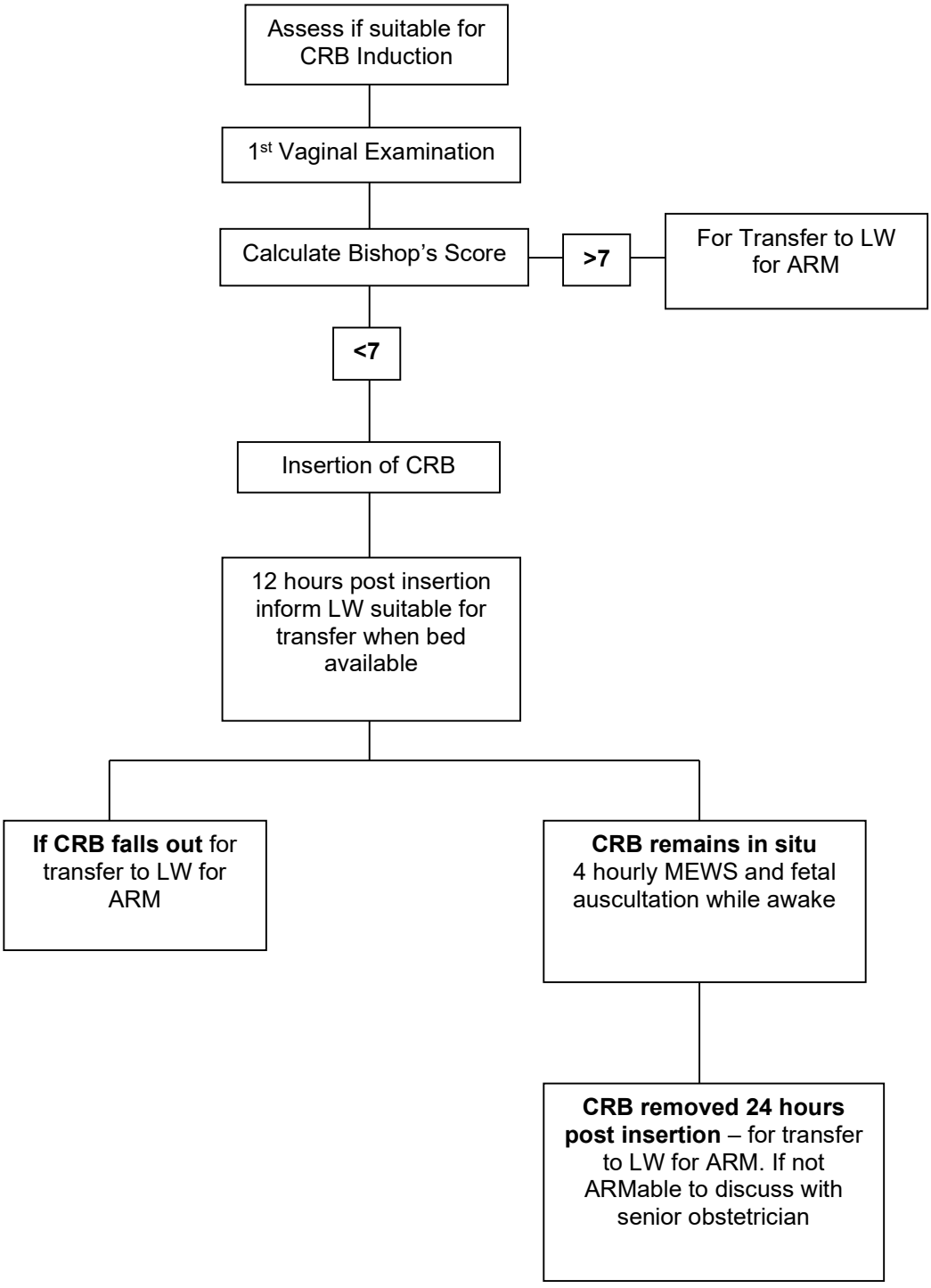
    - If contracting 3:10, then VE 4 hours after ARM
    - If contractions are < 3:10, then start oxytocin infusion

Once the oxytocin infusion has started a continuous CTG is required.
See separate guideline for use of Oxytocinon.

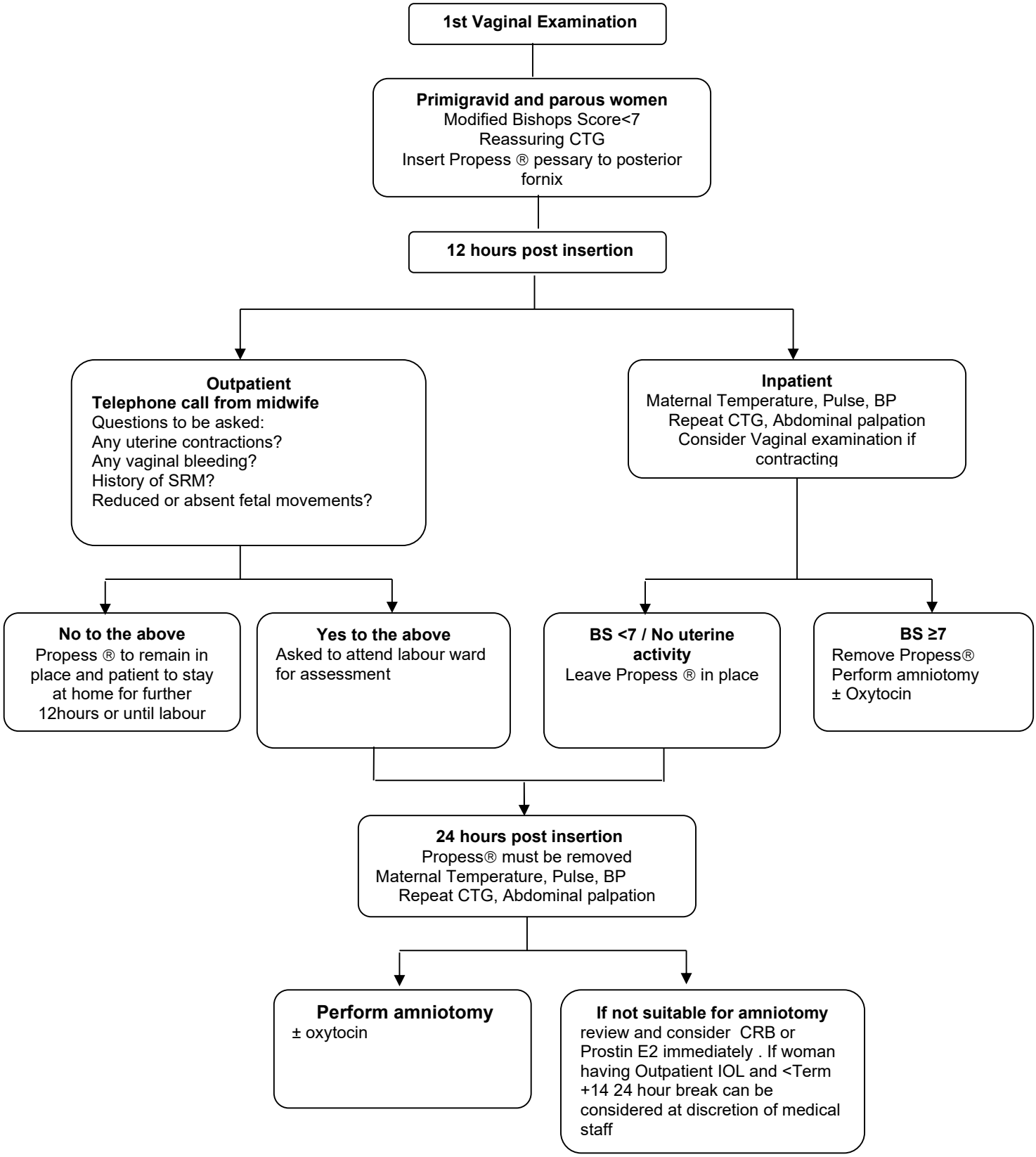
Appendix 1a – Induction of Labour using Cervical Ripening Balloon (Outpatient)



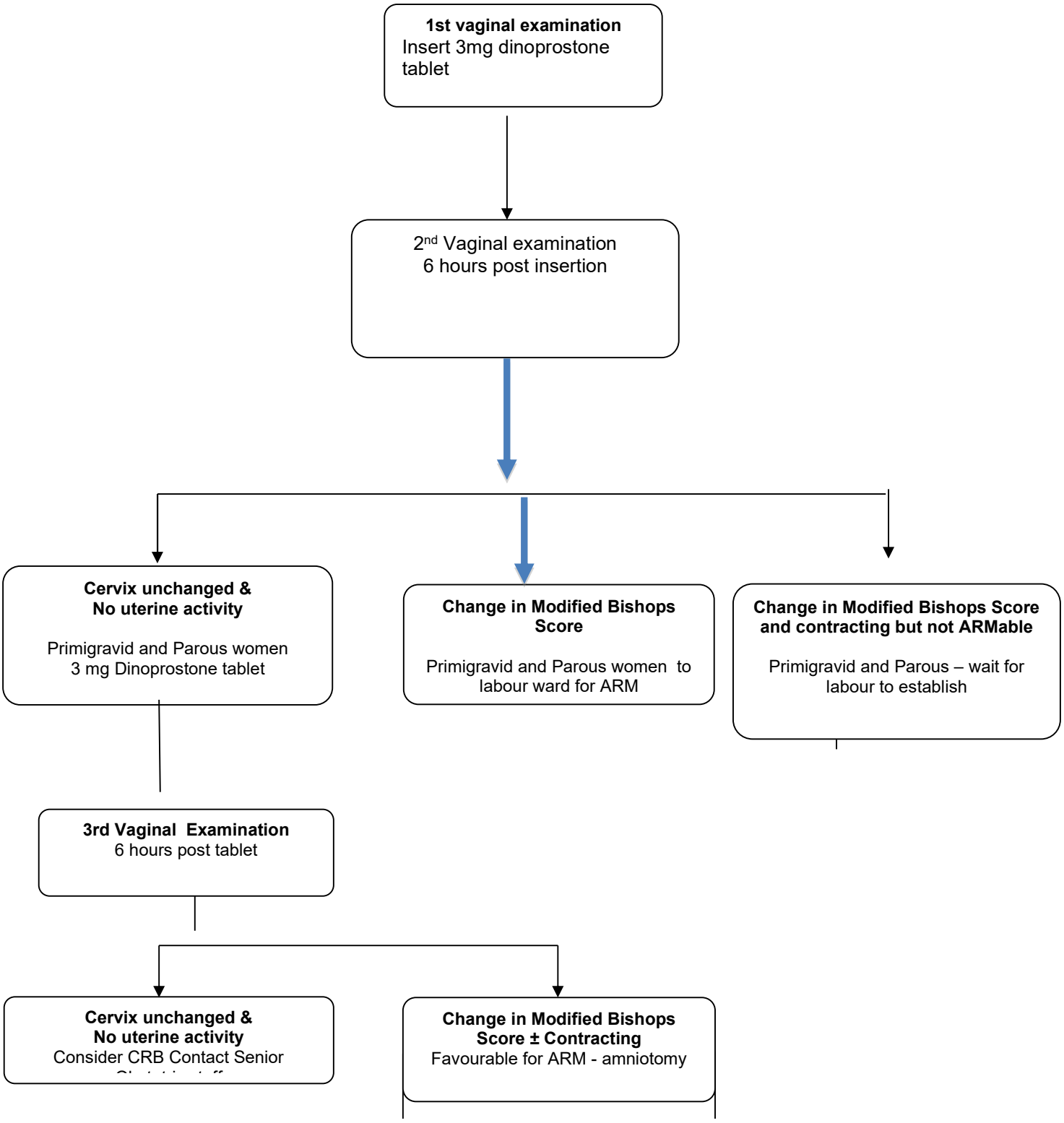
Appendix 1b – Induction of Labour using Cervical Ripening Balloon (Inpatient)



Appendix 2- Induction process using Propess® (Women Para 3 or less)



Appendix 3- Induction using Dinoprostone tablets – usually in primigravid or parous, following Propess® 24 hours and no uterine activity or unsuitable for ARM

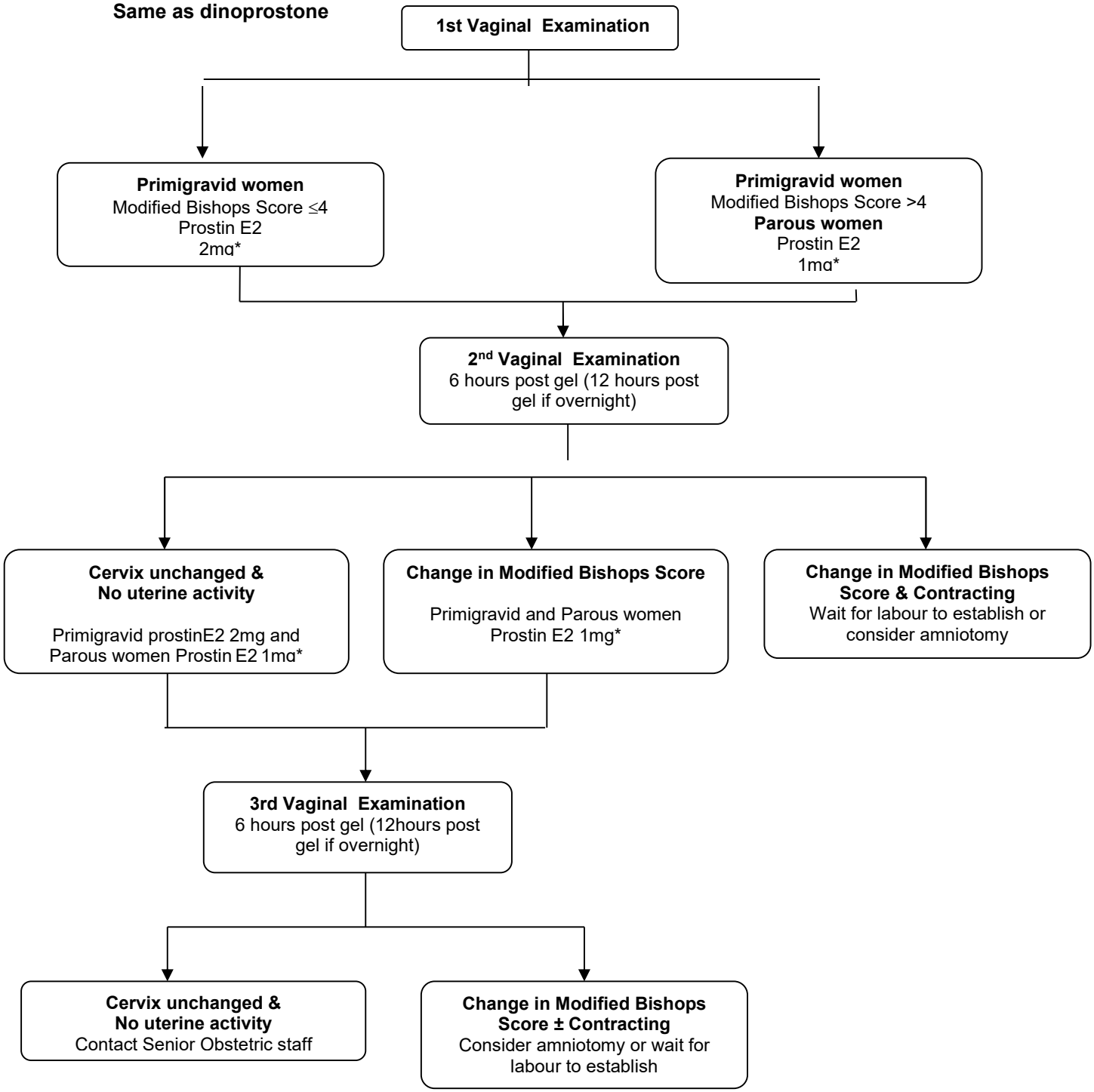


* All Prostin E2 should be administered high into the posterior vaginal fornix avoiding administration into the cervical canal

Appendix 4
Induction using of Prostin E2® vaginal gel
(Replacement agent when no dinoprostone tablets in stock)

Contraindications to Prostin E2®
Same as propess
Cautions (for Prostin E2®)
Same as propess

Procedure
Same as dinoprostone



* All Prostin E2 should be administered high into the posterior vaginal fornix avoiding administration into the cervical canal

ASSOCIATED DOCUMENTS:

Uterine Hyperstimulation guideline
Fetal monitoring guideline
Prelabour rupture membranes at term guideline
Group B streptococcus management
PGD Propess and Dinoprostone
Induction with cervical ripening balloon
http://intranet.lothian.scot.nhs.uk/NHSLothian/Healthcare/A-Z/MedicinesManagement/PatientGroupDirections/Documents/Acute%20Services%20PGDs/PGD%20236v1%20-%20Dinoprostone%20-%20Propess%20for%20induction%20of%20Labour%20%20-%20Midwives.pdf

5. REFERENCES:

[1] NICE Induction of labour Clinical Guideline 2015
[2] NICE Intrapartum care Clinical Guideline 2015
[4]eMC- Prostin E2 Vaginal gel 1mg, 2mg- Summary of product characteristics (SPC)
[4]eMC- Propess 10mg- Summary of product characteristics (SPC)
[4]eMC- Syntocinon - Summary of product characteristics (SPC)
Insertion of a double balloon catheter for induction of labout in pregnant women without previous caesarean section
Interventional procedures guidance [PG528] 2015

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Author 7: Kirsty Dundas

Author 8: NHS Lothian Guideline Group

1. INTRODUCTION:

Pre-labour rupture of membranes (PROM) at term is defined as rupture of membranes prior to the onset of labour at or over 37 weeks gestation. The overall incidence is 8– 10% of all pregnancies[1]. 60% of these women will labour spontaneously within 24hours and over 91% within 48 hours. 6% remain pregnant beyond 96 hours.[2]

Planned early birth may reduce the risk of maternal infection without increasing the risk of caesarean section, compared with waiting. Fewer infants went to the neonatal intensive care unit with planned early birth, though there were no differences seen in rates of neonatal infection (Middleton et al, 2017).

2. AIM:

The purpose of the guideline is to provide guidance on the management of pre-labour rupture of membranes at term. This will standardise care and minimise associated morbidity.

3. GUIDELINES:

- Appendix 1- Telephone triage of women with suspected PROM at term
- Appendix 2 –Management of women with suspected PROM at term

4. ASSOCIATED DOCUMENTS:

- Going home with ruptured membranes'-
  Patient information leaflet (under review currently unavailable)
- Induction of labour guideline
- Group B streptococcus and pregnancy guideline

5. REFERENCES:

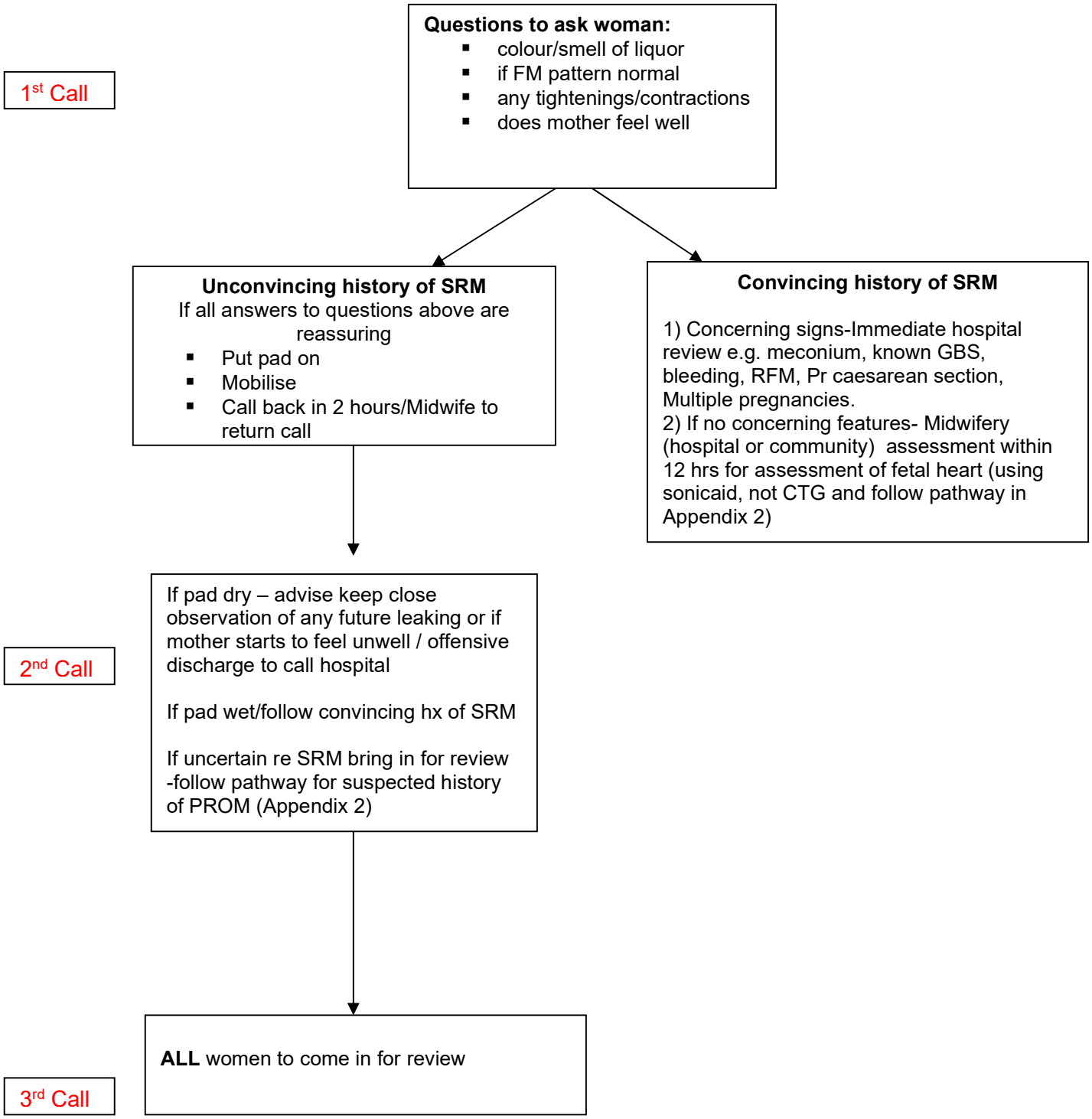
1) Induction of labour. NICE Clinical Guideline 70. July 2008.
www.**nice**.org.uk/**nice**media/pdf/CG070**NICEGuideline**.pdf
2) Intrapartum care. NICE Clinical Guideline 55. September 2007.
www.**nice**.org.uk/**nice**media/pdf/IPC**NICE**Guidance.pdf

6. AUTHOR/S:

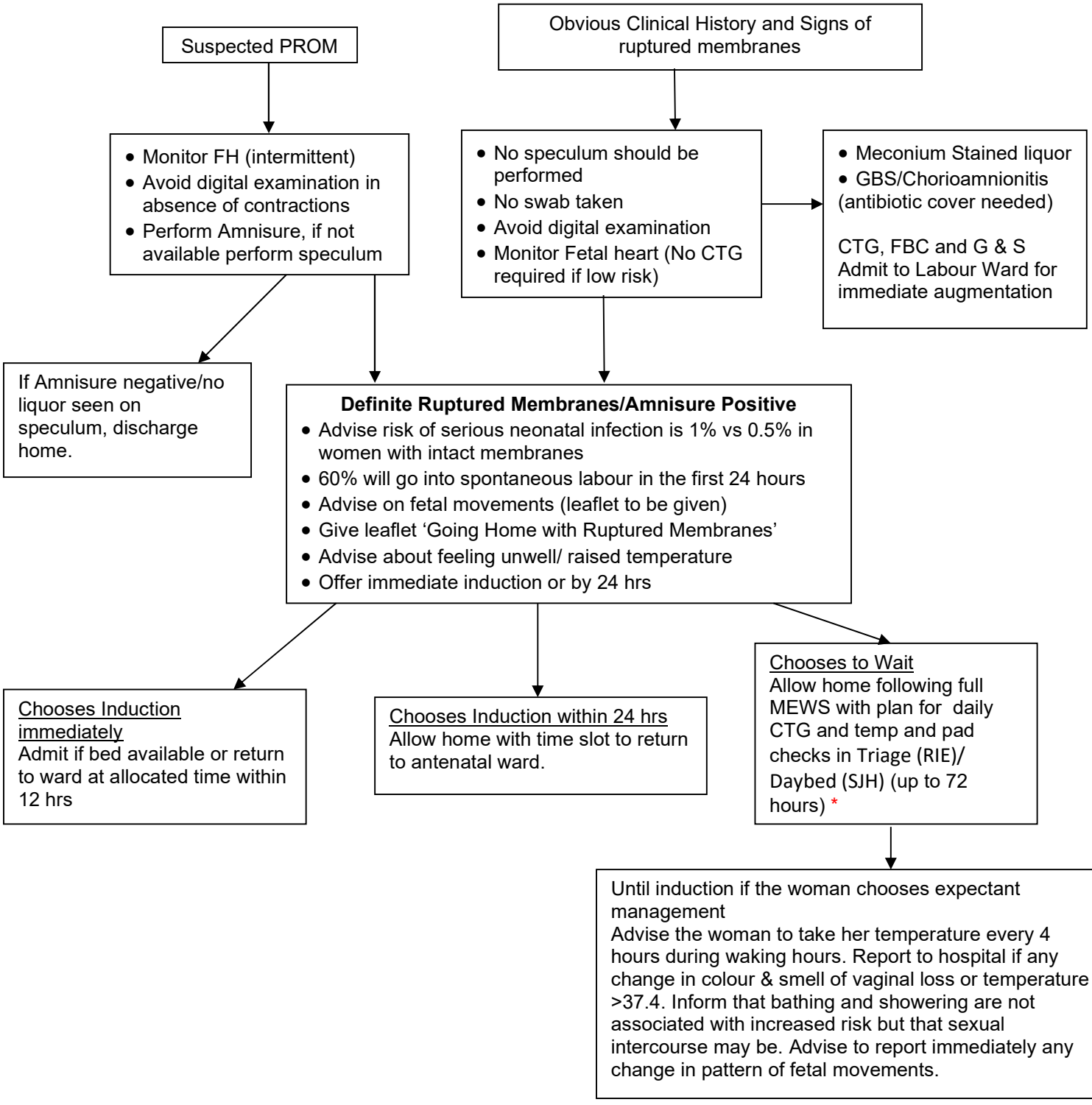
Author 1: Nirmala Mary/Kerry Egan

Author 2: Lothian Obstetric Guideline group

Appendix 1: Telephone triage of women with Suspected PROM at Term



Appendix 2: Management of women with suspected PROM at term



*Women who decline augmentation at 48 hours should be reviewed by a Senior Obstetrician and a management plan made and documented in Maternity TRAK

Spontaneous Labour <24 hr – normal labour & postnatal pathway; Suitable for Birthing centre; No antibiotics unless clinical signs
Spontaneous Labour >24 hr – advise birth in hospital; no antibiotics unless clinical signs; May be suitable for LBC if no signs of infection; advise stay for 12 hrs for neonatal observations.
No labour 72 – 96 hrs – recommend I0L; no antibiotics unless clinical signs; advise stay for 12 hrs for neonatal observations.

This section to be completed by document control.

Appendix 3: Induction/Augmentation with PROM