Maidstone and Tunbridge Wells NHS Trust

Ref: FOI/GS/ID 5590

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18 October 2019

Freedom of Information Act 2000

I am writing in response to your request for information made under the Freedom of Information Act 2000 in relation to Maternity services.

You asked:
1
i) Please could you supply the dosage table for intravenous oxytocin infusion (It might be called Syntocinon.) from your Trust's Induction of Labour (or Augmentation of Labour) policy? If it was recently updated, please supply the previous one, also.
ii) If named in the document, please give the make and model of infusion pump used on your labour ward. (If more than one is in use, please list them all.)
2) Please supply your month-by-month postpartum haemorrhage (PPH) statistics for last year, or, an average rate per month that includes all PPHs (i.e. over 500ml, over 1000ml and over 1500ml), whichever is easier.
3) How many units of blood or blood products were transfused to maternity patients during 2018?
4) What was the cost to your maternity service of blood and substitute blood products transfused during 2018?
5) What was the total cost of transfusion services to your maternity unit, including unused products that had been ordered, in 2018?

Trust response:

1. Please see the following guideline.

MAIDSTONE AND TUNBRIDGE WELLS NHS TRUST

Induction (with Propess and Prostin Gel), Stimulation and Augmentation of Labour

Requested/ Required by: Women's and Sexual Health Directorate

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Approved by: Guideline Group **Date:** 9 January 2017

Ratified by: Clinical Risk Management Group **Date:** 11 January 2017

Review date: January 2020

Document History

Requirement	To comply with national recommendations for best practice to include:

for document:	• National Institute for Health & Clinical Excellence (NICE) • Royal College of Obstetricians & Gynaecologists (RCOG)
Cross References (external):	1. Calder AA and MacKenzie IZ. (1997) Review of Propess® - a controlled release Dinoprostone (Prostaglandin E2) pessary. *Journal of Obstetrics and Gynaecology. Vol 17: 2, S53-S67*. 2. Hospital Episodes Statistics. 'Maternity Data in HES'. HES Online Database. NHS Information Centre for Health and Social Care. Available at: www.hesonline.nhs.uk 3. Kelly A, Thomas J, Kavanagh J. (2003). *Vaginal prostaglandins for the induction of labour at term.* Cochrane database of systematic reviews 4. National Health Service Litigation Authority. (2009) *NHS Litigation Authority Study of Stillbirth Claims.* London: NHSLA. Available at: www.nhsla.com 5. National Institute for Health and Clinical Excellence. (2008). *Induction of Labour.* London: NICE. Available at: www.nice.org.uk 6. National Institute for Health and Clinical Excellence. (2014). *Intrapartum care: Care of healthy women and their babies during childbirth*. London: NICE. Available at: www.nice.org.uk *7.* National Institute for Health and Clinical Excellence (NICE). (2015). *Diabetes in Pregnancy.* Available at: www.nice.org.uk *8.* Royal College of Obstetricians and Gynaecologists (RCOG). (2010) Green top Guideline No 44: '*Preterm pre-labour rupture of membranes'*. Available at: http://www.rcog.org 9. Royal College of Obstetricians and Gynaecologists (RCOG). (2014) Green Top Guideline No 31: *'The Investigation and management of the small-for-gestational-age-fetus'.* Available at http://www.rcog.org
Associated Documents (internal):	• Care of Women in Labour • Vaginal Birth with Uterine Scar • Guidelines and Care Following Stillbirth (≥24 weeks) and Neonatal Death • Immediate Care of the Newborn Guidelines • Haemolytic Group B Streptococcus: management during Pregnancy & Labour • Diabetes in Pregnancy (Gestational and Pre-existing) **Maternity leaflet** • Membrane Sweeping and Induction of Labour Leaflet (Organisational-wide document) • Outpatient Induction of labour: Going home with Propess Leaflet (Organisational-wide document)

Version Control:

Issue:	Description of changes:	Date:
1.0	Guideline for Induction, Stimulation and Augmentation of Labour	2005
2.0	Guideline for Induction, Stimulation and Augmentation of Labour. Updated in line with current evidence.	2009
3.0	Guideline for Induction (with Prostin Gel), Stimulation and Augmentation of Labour (using Prostin). See Propess guideline on Datix Policy & Guideline system; also available as an Appendix link with this guideline. Includes amendments following CNST Maternity Standards 2010/11 and 2011/12 publication.	February 2011
4.0/5.0	Minor amendments to address service reconfiguration and ensure Risk Standards fully met	October 2011
6.0	Amalgamation of Propess & Prostin guidelines + additional directive for ARM (VBAC)	September 2013
7.0	Review and update with inclusion of new Outpatient Propess Service	July 2016 – January 2017
7.1	Corrections including: • For clarity, Section 5.5.2 moved to Section 5.6.3 (as first bullet point) • Removal of reference to Maidstone Day Unit	June 2017
7.2	Numbering typo corrected	June 2017

Induction (with Propess and Prostin Gel), Stimulation and Augmentation of Labour

Contents

1.0 Introduction and Scope of Procedural Document

Maidstone & Tunbridge Wells NHS Trust recognises that induction, stimulation and augmentation of labour are frequently occurring procedures in Obstetrics.

This guideline offers best practice advice on the care of women who are having or have been offered induction of labour. It also covers stimulation and augmentation of women who are in labour.

At present this guideline relates to the use of Propess and Prostin Gel.

The document is for:

- The use of midwifery and obstetric staff that care for women whose labour is being stimulated, induced or augmented
- To ensure that women receive appropriate care which is evidenced based
- The use of Propess / Prostin gel for induction of labour (IOL)
- The use of Syntocinon for augmentation (the correction of inefficient uterine action once labour has started) in the first and second stage of labour
- Expectant mothers in labour, whose uterine action in labour has been clinically assessed to be insufficient for adequate progress in labour, and without use of which, labour is likely to be dysfunctional, compromising the health and safety of the mother and her unborn baby

2.0 Definitions

For the purpose of this guideline the following definitions apply:

Membrane Sweep The process of separating the membranes from the cervix during a vaginal examination

Induction of Labour	The process of starting labour artificially
Stimulation	The process of inducing contractions when rupture of membranes have occurred pre-labour
Augmentation	The correction of inefficient uterine action once labour has started
Artificial Rupture of Membranes	Process of rupturing the membranes using amni-hook (ARM)
Labour	The process of giving birth; parturition
Syntocinon	A synthetically produced drug that is used to either start off, or augment the labour process; and whose actions it is hoped, will mimic the hormone naturally produced by the human body
Nulliparous	A woman who is giving birth for the first time

Multiparous	A woman who has given birth before
Caesarean Section	Delivery of an unborn baby by an abdominal operation
Prostin Gel	Intravaginal PGE2 gel, which is clinically equivalent to PGE2 tablets and available in variable doses
Propess	Vaginal pessary, containing 10mg Dinoprostone (PGE2) in a vaginal tablet form, which has a tape attached. It releases prostaglandins at a steady rate of 0.3mg/hr for up to 24 hours and has a half-life of 1-3 minutes

3.0 Duties

It is the registered professional's responsibility to deliver care that is based on current evidence, always acting in the patient's best interest.

4.0 Training / Competency Requirements

No further training is required to implement this guideline.

5.0 Procedure for Induction, Stimulation and Augmentation of Labour (using Propess / Prostin Gel)

5.1 INDUCTION OF LABOUR

5.1.1 Introduction

- Although a variety of specific clinical circumstances may indicate the need for induction of labour with a greater or lesser degree of urgency, the essential judgment that the clinician and the pregnant woman must make is whether the interests of the mother or the baby, or both, will be better served by ending or continuing the pregnancy.
- In making that judgment, it is necessary to factor in the attitude and wishes of the woman in response to her understanding of the actual risk of continuing the pregnancy, as well as the possible consequences of the method employed and the response to induction of labour.
- If the prospects for success are not good, especially if the woman's cervix is unripe, or if the response to early attempts to start labour are disappointing, it may be necessary to reconsider the wisdom of proceeding and perhaps to resort to birth by caesarean section. Indeed, in some circumstances, the attempt to induce labour may be regarded as not justified at all.
- Induction of labour has a major health impact on the woman and on her baby. The decision to undertake induction of labour needs to be clear and clinically justified.

5.1.2 Assessment

- For induction of labour to be considered and to be offered, there must be evidence that such an intervention carries benefits for the mother and/or her

baby and this requires careful consideration of the clinical evidence in discussion with the woman.

- The interests of the mother may occasionally run counter to those of the baby and vice versa, so that consideration of the offer of induction of labour requires a careful weighing up of the evidence and sensitive discussion of the issues with the mother.
- In all cases, there is a clear need for the provision of information to allow women being considered for induction of labour to make a fully informed choice.
- It is also imperative that the most accurate information is obtained concerning the gestation age of the pregnancy.
- The state of the woman's cervix should be assessed on the basis of a vaginal examination using the Modified Bishops score.

5.1.3 Modified Bishops Score

Score

Cervical Features	**0**	**1**	**2**	**3**
Dilatation (cm)	**< 1**	**1 - 2**	**2 - 4**	**> 4**
Length of Cervix (cm)	**> 4**	**2 - 4**	**1 - 2**	**< 1**
Station (relative to ischial spines)	**- 3**	**- 2**	**- 1 / 0**	**+1 /+2**
Consistency	**Firm**	**Average**	**Soft**	**-**
Position	**Posterior**	**Mid/Anterior**	**-**	**-**

- **If, after discussion of the relevant issues, the woman chooses to decline the offer of induction of labour**, she must not be made to feel alienated from her healthcare professionals and further discussion, along with a documented individual management plan (within her records) is required regarding the measures needed for ongoing monitoring of the pregnancy.
- It is also important to inform the woman that induction of labour is not always successful and she should be given information as to the likely management should the intervention prove unsuccessful.

5.1.4 Inductions booked by Midwifery Staff

- Providing the pregnancy is uncomplicated, and there is no scar on the uterus, a midwife can make the decision for induction for post maturity **(40 +14)** or for those women who present with confirmed SROM and no contractions.
- All other indications should be agreed with the Consultant / Middle Grade under whom the woman is booked.
    - **Confirm the gestation from a scan at < 24 weeks gestation.** If any discrepancies or dispute with the woman, refer to the Middle Grade.

- Give induction of labour (IOL) leaflet to the woman and go through it with her. The reason for procedures used must be fully explained to the woman and her consent obtained. It is important to remember that the woman may be disappointed by the need for induction and must be able to make informed choices.
- The gestation and indication for induction must be documented in the notes. A cervical assessment should be recorded once a decision for IOL is made**. A membrane sweep should be offered to all women during this assessment as these increases the rate of spontaneous labour.** A membrane sweep can also be offered to women by the medical professional, when induction of labour is being booked for other indications.

Book a date for the IOL in the diary held on the Antenatal Ward.

Should a mother decline IOL and 42 weeks of gestation have been completed:

- The mother will be referred to the named consultant or on call obstetric team for discussion surrounding the risks of continuing pregnancy beyond 42 weeks, and a plan will be formulated.
- Regular fetal surveillance is necessary through the midwifery day assessment unit at the Tunbridge Wells Hospital.

5.1.5 PLACE OF INDUCTION

Induction of labour is performed on the Antenatal ward, with the exception of:

- Severe pre-eclampsia/or unstable blood pressure
- Previous Caesarean Section (any scarred uterus). These women will be admitted directly to the Delivery Suite on the day of their Induction
- Intrauterine Growth Restriction (IUGR) with abnormal Doppler's

For these women Induction of labour MUST take place on Delivery Suite.

Documentation:
All the discussions, assessments, actions and individual management plans relating to induction, augmentation and stimulation of labour should be documented in the notes contemporaneously.

5.2 METHODS OF INDUCTION

5.2.1 Artificial Rupture Of Membranes (ARM) Alone

- This option may be considered for primips and multips with an engaged head and a favourable cervix with a Bishops score > 8.

- Can be considered as a primary method of induction when there are specific clinical reasons for not using vaginal PGE2, in particular the risk of uterine hyperstimulation and VBACs.

- An abdominal palpation should be performed to confirm presentation and engagement

5.2.2 Prostaglandin Gel / Other Options

- The prostaglandin of choice in this Trust is intravaginal PGE2 **(Prostin gel or Propess pessary).**

- When used to ripen the cervix prostaglandins increase the likelihood of a successful induction of labour and achieving a vaginal delivery in 12 - 24 hours. (Enkin et al 2000)

- **Prostaglandins should not be used** if there is an abnormal CTG or the woman is contracting except after discussion with Middle Grade or Consultant, as prostaglandins have the potential to cause hyperstimulation and/or fetal distress, or if there is a uterine scar.

- If the labour is progressing, an artificial rupture of membranes (ARM) is not necessary.

- Prostaglandins and / or Syntocinon may be used for IOL in nulliparous or multiparous women with PRoM regardless of cervical status. Only one dose of Prostaglandin gel is recommended in this situation, as repeated use is associated with an increased risk of maternal infection.

- The use of Syntocinon may be considered to augment the labour (to be commenced no sooner than 6 hours following Prostin gel).

5.2.3 Administration of Propess

- Women booked for induction will be admitted to the Antenatal ward. They will be asked to contact the ward on the morning of IOL, and given an appropriate time to attend.
- Propess can be used in primigravida and multigravida, but should only be used for those with an unfavourable cervix (Bishops score < 7)

- The Propess pessary should be inserted into the posterior fornix and rotated into a transverse position behind the cervix.

- The fingers should then be removed carefully so that the tape unravels to hang outside of the vulva.

5.3 OBSERVATIONS during induction - prior to established labour

- A 30 minute CTG should be performed **prior** to insertion of Propess or Prostin gel in the posterior fornix.
- 60 minute continuous electronic fetal monitoring (EFM) following instillation of Propess or Prostin gel
- Once a Propess pessary or Prostin gel is inserted – then there should be four hourly fetal heart and maternal observations (for inpatients). Overnight, observations should be recorded when the woman is awake; however a fetal heart must be auscultated at the beginning and end of the shift.
- A CTG is required once in 24 hours only; unless there is a change in condition.
- Continuous CTG to be undertaken where Syntocinon is being used - this is only on Delivery Suite.

5.4 OUTPATIENT INDUCTION OF LABOUR

This option will be offered to women with their first pregnancy and who have been uncomplicated when reaching 41+6 weeks of gestation.

5.4.1 The booking process and the induction of labour pathway is that of Propess and therefore the same as described above.

- Women undergoing Outpatient Induction of labour will have a full Antenatal check on admission to the Antenatal ward, or Maternity Day Unit.
- CTG recording for 30 minutes prior to insertion of Propess **and a further 60 minutes post insertion.**
- Following a normal CTG, the woman will be discharged home. She will be given the 'Going Home with Propess' leaflet which clearly states what she needs to observe at home, and contains all contact information for her to call, should she be concerned. The midwife will ensure the woman understands the leaflet prior to discharge.
- The woman will be asked to return to the ward 24 hours following the insertion of the Propess, whatever time this was undertaken. The induction process will then continue with the woman as an inpatient
- If the woman suspects her membranes have ruptured prior to returning to the ward as planned, she will contact the induction of labour co-ordinator. The woman will be seen through Triage and, if all remains uncomplicated and no contractions develop, she may return home with the Propess insitu.

5.4.2 Observations during induction - prior to established labour

Please refer to Section 5.3 above

5.4.3 Removal of Propess

The Propess should be removed if:

- Regular contractions are established and the cervix is dilated greater than 3cms
- If SROM occurs **do not remove** the pessary unless in established labour (>3cms with regular contractions), or 24 hours has elapsed
- PV bleeding
- Evidence of fetal compromise
- Uterine hyperstimulation
- At least 30 minutes prior to commencing Syntocinon
- Following 24 hours after insertion

5.4.4 Propess falls out

- If the Propess falls out and has remained clean i.e. dropped onto clean bed sheets and not dropped on the floor or into the toilet it may be reinserted and used to the 24hr limit
- If the insert has been lost and you are 100% sure it is no longer in place, a new one may be inserted and used up to 24hrs after the insertion of the first insert or, if the time when the insert had dropped out is known, this can be taken into account and the duration of treatment with the second adjusted to make up the 24 hours maximum

5.4.5 Hyper-stimulation management

Hyper stimulation is strong palpable sustained contractions occurring more frequently than 4:10 with minimal resting tone of the uterus

- Due to continuous release of prostaglandins, hyperstimulation should occur less frequently than with Prostin gel (Werner 2005).

- If hyperstimulation is suspected then continuous CTG should be commenced immediately, and the Obstetric Middle Grade informed; if the CTG is normal then the CTG should remain continuous and observed closely until resolved.

- If the CTG is not normal then the case should be reviewed by the Middle Grade and the Propess removed immediately.

- Terbutaline 0.25mg s/c should be considered; however, due to the short half-life of Propess and the slow dose release per hour, the hyperstimulation should resolve spontaneously in 15 – 20 minutes

5.5 AFTER 24 Hours ALL Outpatient Induction of Labour women will follow this pathway

- The Propess should be removed and the patient assessed.
- If the cervix remains unfavourable for ARM, an Obstetric consultation should ensue to assess the necessity for further prostaglandin (Prostin Gel)

- If the cervix is favourable for ARM - the Induction of Labour Co-ordinator will liaise with the Delivery Suite Co-ordinator to ensure the woman is received on Delivery Suite at the next available opportunity.

ARM is only performed on Delivery Suite

5.5.1 Fetal & Maternal Observations following ARM

- A 30-minute CTG should be performed before ARM.
- VE is performed and the membranes ruptured using an amnihook. If the presenting part is high the decision to ARM needs to be reconsidered (discuss with Middle Grade).
- Immediately following ARM record fetal heart rate for 30 minute with CTG until normality is confirmed.
- Document liquor colour and consistency.
- Encourage mobilisation to promote onset of uterine contractions.
- Observations should be continued every hour and should include maternal observations (maternal pulse and uterine activity) and auscultation of the fetal heart.
- Commence CTG with onset of regular painful contractions or concerns.
- If labour is not established 2-4 hours after ARM, a Syntocinon infusion should be commenced.

5.5.2 Dose of Prostin Gel

- Primips Bishop score < 4
- Initial dose 2mgs
- Further l-2mg dose after 6 hours to a total maximum dose of 4mg in 24hrs
- If not in labour then review by Middle Grade or Consultant
- Primips with Bishop score 4 and greater, and All Multips
- Initial dose Img
- Further 1 mg dose after 6 hours to a total maximum dose of 2mg for Multips
- If not in labour then review by the Middle Grade or Consultant.

5.5.3 Failure of Induction

Following a review of the clinical situation and discussion with the woman and medical team, a clear individual management plan must be documented in the notes.

If Prostaglandin induction appears to be failing:

- The original indication for induction of labour needs to be revisited.
- Subsequent management may include proceeding to CS, or deferring the induction process. Decision to defer must be taken at Consultant level.
- If the maximum dose of prostaglandin has been given and labour has not commenced, an ARM may be attempted by the Middle Grade/Midwife depending on the favorability of the cervix.
- Caesarean section (CS) may be appropriate if an ARM is impossible.
- A further dose of Prostin Gel can be considered after 24 hours - only agreed at Consultant level.

5.5.4 Regime for Syntocinon Infusion

- The Syntocinon infusion is administered through an infusion pump with a non-return valve.

- Syntocinon should be added to Hartmann's Solution.

- To make up the infusion, put 10iu Syntocinon in 500 mls of Hartmann's soln. Hence 3mls/hour = 1 milliunit Syntocinon per minute.

- Rate – start the infusion at 1 milliunit/minute and increase at intervals of 30 minutes or more following regimen below.

- The minimum dose possible of Syntocinon should be used and this should be titrated against uterine contractions aiming for a maximum of 3 – 4 in 10 minutes.

- The licensed maximum dose is 20 milliunits per minute.

- If higher doses are required, this should be discussed with Middle Grade or Consultant. The maximum dose should not exceed 32 milliunits per minute without careful Consultant review.

- Higher doses may be needed if the woman is less than 24 weeks.

Assessment prior to commencement of Syntocinon

- Whenever Syntocinon infusion is recommended and prescribed, this should be clearly discussed with the woman and verbal consent documented in the notes.

- Abdominal palpation and vaginal examination should be documented prior to commencing Syntocinon.

- **An Individual Management Plan should be documented in the notes**

regarding maternal/fetal monitoring and the next review, whenever Syntocinon is commenced.

- **Syntocinon should not be started for 6 hours following the administration of Prostin as it may cause hyperstimulation.**

5.5.5 SYNTOCINON REGIME

(Including Dose Schedules and Frequency of Increment)

Minimum time after starting (minutes)	Syntocinon dose (milliunits per minute)	Volume infused mls / hr. (Dilution 10 iu Syntocinon in 500mls Hartmann's Soln.
0	1	3
30	2	6
60	4	12
90	8	24
120	12	36
150	16	48
180	20	60
210	24	72*
240	28	84*
270	32	96*

***(Discuss with Middle Grade or Consultant)**

The rate of infusion may be increased every 15 minutes rather than every 30 minutes to achieve contractions at a maximum rate of 3-4 in 10 minutes when commenced in the second stage of labour

Monitoring during Syntocinon infusion: Maternal and Fetal

- Uterine contractions – length, strength and frequency via tocograph and checked by abdominal palpation.
- Continuous CTG must be used where Syntocinon is being used.
- In the case of an IUD the rate of contractions and strength should be monitored by abdominal palpation.
- Document in notes effectiveness of analgesia and advice.

- Observe vaginal loss hourly for presence of meconium.

All observations and doses of Syntocinon (in milliunits per minute) must be recorded on partogram.

Documentation

- Documentation must include:
    - maternal and fetal assessment prior to commencing Syntocinon
    - the infusion dose and record of incremental increases
    - maternal and fetal monitoring throughout

- An individual management plan when Syntocinon is commenced should also be documented in the notes contemporaneously and, if Syntocinon is stopped for any reason, the reason and further management plan should also be clearly documented in the notes.

5.5.6 Side effects of Syntocinon infusion (Including when Syntocinon should be stopped):
If the Syntocinon infusion is stopped, the reason for this and the subsequent plan should be clearly documented in the notes.

Fetal bradycardia	➢ **Stop infusion and request medical advice**
CTG Abnormalities	➢ Immediate review by Co-ordinating Midwife ➢ Assess ongoing requirement for continuing syntocinon infusion ➢ If CTG abnormality persists and Syntocinon required, for review by Middle Grade or Consultant with view to fetal blood sampling if appropriate ➢ Continue Syntocinon if abnormality minor or pH normal
Uterine hypertony	➢ **Stop infusion, request medical advice**
Uterine rupture	➢ **Stop infusion, obtain medical aid immediately, prepare for immediate Caesarean Section**
Nausea/vomiting	➢ Give anti emetic if persistent
Breathlessness	➢ **Stop infusion,** call Middle Grade and Anaesthetist. May be pulmonary oedema. Check Sodium level (risk of hyponatraemia)

5.5.7 Care in Prescribing
Syntocinon can only be prescribed in the following cases after review by Middle Grade or Consultant:

- **Previous Caesarean Section**
- **Hypertonic uterine contractions**
- **Abnormal CTG (+/- meconium)**

- **Cardiac disease in mother**
- **Commencing Syntocinon in the second stage**
- **All multiparous women apart from IOL**

5.5.8 Care following Delivery

To reduce the risk of PPH, active management of the 3rd stage should always be practiced when Syntocinon has been used.

5.6 INDUCTION OF LABOUR IN SPECIFIC CIRCUMSTANCES

5.6.1 Previous Caesarean Section (CS)

Induction may be offered on an individual basis on D/S:

- Provided CS for non-recurrent indication, induction and augmentation can be considered after consultation with Consultant.

- A clear management plan must be made, and documented in the woman's notes at the time of booking the induction, by the Consultant team regarding methods of induction to be used (i.e. Prostin, ARM, Syntocinon).

- Clear documentation in the woman's notes, noting the increased risk of uterine scar rupture.

- Beware of slow progress in trial of scar. The rate of rupture increases as progress during labour becomes slow.

Refer to MTW Guideline for Vaginal Birth with Uterine Scar available at:
http://twhqpulse01:85/QPulseDocumentService/Documents.svc/documents/Active/attachment?number=RWF-WC-OPG-MAT-CG65

5.6.2 Preterm pre-labour rupture of membranes

- Erythromycin (250 mg orally 6 hourly) should be given for 10 days following the diagnosis of PPROM.

- Delivery should be considered after 36 weeks of gestation.

- Where expectant management is considered beyond 36 weeks of gestation, women should be counselled about the increased risk of chorioamnionitis and its consequences versus the decreased risk of serious respiratory problems in the neonate, admission for neonatal intensive care and caesarean section.

5.6.3 Pre-labour rupture of membranes (PRoM)

- Prostin gel will continue to be used at Maidstone and Tunbridge Wells NHS Trust for this group of women - see Appendix 9 for Tabulated Chart of guidance re: When women should be asked to return for induction of labour following PROM (applicable to nullips and multips)

- Spontaneous rupture of the membranes prior to the onset of regular uterine contractions at or after 37+0 weeks of gestation.

- Pre-labour rupture of membranes occurs in 6-19% of term pregnancies, 60% of women go into spontaneous labour within 24 hours of rupturing their membranes. The rate of spontaneous labour after this is about 5% per day.

- The risks of PRoM at term includes prolapsed cord, maternal and fetal infection (The risk of serious neonatal infection is 1%), as the time between the rupture of the membranes and the onset of labour increases, so is the risk of infection. Induction of labour reduces these risks.

5.6.4 Assessment of Prelabour Rupture of Membranes (PRoM)

- Women should be advised to attend hospital within 1-2 hours, for SROM to be confirmed and for fetal wellbeing to be assessed. If booked for a home birth, a community midwife should be asked to review the woman at home within the same time frame.

- Careful history taking to confirm: the agreed EDD (first trimester scan is the most accurate), the current gestation, and review the past obstetric history including specific evidence of GBS.

- The diagnosis is made on the basis of maternal history and confirmed by speculum examination. Speculum examination may be avoided if convincing history with liquor visible at introitus, and It should be only recommended to confirm diagnosis if SROM is not obvious.

- Avoid a vaginal examination except if the woman is clearly in spontaneous labour as this is likely to increase the risk of intrauterine infection.

- If a VE is performed after SROM, stimulation within 6 hours is not indicated if maternal and fetal observations are normal.

- Time of rupture of membranes should be taken from when the woman says she has been draining liquor unless there is no evidence of SROM on presentation to hospital or speculum examination.

- If all findings are within normal parameters, the woman may return home with an advice sheet and a date and time to return for augmentation of labour.

- Women with PRoM without any other complications should be offered stimulation of labour according to the guideline.

- If the woman chooses to wait longer than 24hours:
    - If a woman declines a CTG, fetal heart rate should be auscultated, movements assessed and her wishes should be documented in her notes
    - Mother and baby to stay in hospital at least 12 hours after birth so that baby can be observed (Refer to Care of the Newborn Guidelines)

5.6.5 Induction of labour of term Pre-labour Rupture of Membranes (PRoM)

- The induction should be booked for an appropriate time within the following 24 - 48 hours, in line with the guideline. If the woman wants to wait longer discuss with Middle Grade Staff but should not exceed 96 hours.

- Prostaglandin gel and or Syntocinon may be used for IOL in nulliparous or multiparous women with PRoM.

- Only one dose of Prostaglandin gel is recommended, as repeated use is associated with an increased risk of maternal infection.

- Antibiotics are not routinely indicated if there are no signs of infection.

5.6.6 Contra-indications to expectant management of term Pre-labour rupture of membranes (PRoM)

- Any contra- indication to vaginal delivery
- PV Bleeding
- Signs of infection
- Meconium stained liquor
- Other high-risk pregnancies (Discuss with Middle Grade Staff)

5.6.7 Fetal growth restriction

- There is a wide variation in practice in the timing of delivery of growth restricted fetuses.

- This guideline is applicable if induction of labour is indicated for fetal growth restriction.

- **The exception is in the event of severe fetal growth restriction with confirmed fetal compromise when induction of labour is not recommended.**

5.6.8 Maternal diabetes (not Gestational Diabetes)

Offer induction of labour (or caesarean section if indicated), after 38 weeks if the baby has grown normally and the woman is on insulin.

Refer to Guideline for MATERNITY – PRE-EXISTING DIABTES IN PREGNANCY for more details:
http://twhqpulse01:85/QPulseDocumentService/Documents.svc/documents/Active/attachment?number=RWF-WC-OPG-MAT-CG7

5.6.9 Intrauterine death

In the event of an intrauterine fetal death support should be available to help the woman and her partner and/or family cope with the emotional and physical consequences of the death:

- If the woman is clinically well, with intact membranes and in the absence of bleeding or infection she should be offered a choice of immediate induction of labour or expectant management.

- If clinically unwell, if there is evidence of ruptured membranes, infection or bleeding, immediate induction of labour is the preferred management option.

- Consider giving oral Mifepristone 200mg, 36- 48 hrs before induction of labour regardless of gestation. Use of Vaginal prostaglandins - Prostin or Misoprostol is dependent on gestation. Misoprostol is preferred for gestation below 34 weeks and Prostin after 34 weeks gestation

- For women who have intrauterine fetal death and who have had a previous caesarean section, the risk of uterine rupture is increased. The dose of vaginal prostaglandin should be reduced accordingly, particularly in the third trimester. Consultant input is required when prostaglandins are being prescribed to anyone with a uterine scar, even in the presence of an IUD

  For care, investigations and management please refer to local guideline Guidelines and Care Following Stillbirth (>24 weeks) and Neonatal Death: http://twhqpulse01:85/QPulseDocumentService/Documents.svc/documents/Active/attachment?number=RWF-WC-OPG-MAT-CG41

5.6.10 Maternal request

- Induction of labour for maternal request should not be routinely offered.

- This may be considered at or after 40 weeks gestation under exceptional circumstances and after discussion with a Consultant.

- Patient should be informed about the risks of induction and clearly documented in patients notes. (NICE Induction of Labour Guidelines. 2008)

5.7 DIAGNOSIS AND MANAGEMENT OF DELAY IN 1st STAGE OF LABOUR (APPENDIX 4 & 5)

- A diagnosis of delay in the first stage of labour needs to take in consideration of all aspects of progress in labour and should include:
  - Cervical progress of less than 2cm in 4 hours for first labours
  - Cervical progress of less than 4cm in 4 hours for second and subsequent labours

- Descent and rotation of the head
- Changes in strength, duration and frequency of contractions

- Where delay is confirmed and membranes have already ruptured, Syntocinon may be considered

- Where delay is confirmed and membranes are intact, artificial rupture of the membranes is recommended and a further vaginal examination should be offered 2 hours later. Syntocinon should be considered if there is progress less than 1cm in the 2 hour period (first labours) OR if there is progress less than 2 cm in the 2 hour period (second and subsequent labours)

5.7.1 Assessment prior to Syntocinon in First stage of labour

A. Nulliparous women

Where delay in the established first stage of labour is suspected in a nulliparous woman, the midwife should make an assessment of the following:

- Abdominal palpation (descent and rotation of presenting part)
- Assess the frequency, strength and duration of contractions.
- Vaginal examination to assess cervical dilatation and station and position of the presenting part
- The woman's emotional state (support, hydration and appropriate emotional support should be considered)

If delay is confirmed:

- Discuss with Obstetrician
- Syntocinon is recommended
- **An Individual management Plan of care** should be discussed with woman and documented in the notes

(See Flow Chart - Appendix 4)

B. Multiparous women

- Multiparous women with confirmed delay in the first stage of labour must be seen by an experienced obstetrician (Middle Grade or above)
- A full assessment including an abdominal palpation and vaginal examination should be undertaken by medical staff before making a decision about the use of Syntocinon.
- **An Individual Management Plan** of care must be discussed with woman and documented in the notes

(See flow chart – Appendix 5)

5.7.2 Information for the woman

- The woman should be informed that the use of Syntocinon following spontaneous or artificial rupture of membranes will bring forward her time of birth but will not influence the mode of birth or other outcomes.

- Women should be told that Syntocinon will increase the strength and frequency of the contractions and that it's use will mean that the baby should be monitored continuously.

- Support and adequate pain relief should be offered.

5.7.3 Management plan for the first stage in labour

- **A clear Individual Management plan** must be documented in the case notes by the obstetrician (multiparous women) or the midwife / obstetrician (nulliparous women).

- The minimum dose possible of Syntocinon should be used and this should be titrated against uterine contractions aiming for a maximum of 3-4 in 10 minutes.

- The licensed maximum dose is 20 milliunits per minute.

- If higher doses are required, this should be discussed with the Obstetric Middle Grade or Consultant and documented in the notes. The maximum dose should not exceed 32 milliunits without careful Consultant review.

- A vaginal examination to assess progress is indicated four hours after contractions become adequate (3-4 in 10 minutes).

- The Obstetric Middle Grade must be updated re progress at this point and a further management plan documented in the case notes.

5.7.4 Syntocinon with a previous caesarean section
(Read along with MTW Guideline for Vaginal Birth with Uterine Scar:
http://twhqpulse01:85/QPulseDocumentService/Documents.svc/documents/Active/attachment?number=RWF-WC-OPG-MAT-CG65

- Beware of slow progress in trial of scar as the rate of scar rupture increases as progress in labour becomes slow.

- **The decision to use Syntocinon must be discussed with the Consultant Obstetrician.**

- Abdominal palpation must be undertaken and documented in notes.

- 2 hourly vaginal examinations are indicated once Syntocinon and regular contractions (3 in 10) have begun to ensure adequate progress is made.

- **The woman should be informed that risk of scar rupture increases 2-3 fold when Syntocinon is used in the presence of a uterine scar.**

5.8 DIAGNOSIS AND MANAGEMENT OF DELAY IN SECOND STAGE OF LABOUR

Assessment prior to use of Syntocinon in second stage of labour

5.8.1 Nulliparous women

- The 'passive phase' may last for up to 2 hours in a nulliparous woman with an epidural (1 hour with no epidural).

- A diagnosis of delay in the active second stage should be made when it has lasted for 2 hours.

- Nulliparous women with poor uterine action should be discussed with the obstetrician without undue delay. Syntocinon may be prescribed as appropriate.

- Throughout the passive and active second stage of labour, progress should be kept under close review and, if poor, discussed with the co-ordinating midwife and the Obstetric Middle Grade.

- After each review, and if Syntocinon is prescribed **an Individual management plan must be documented.**

(See Flow Chart Appendix 6)

5.8.2 Multiparous women

- The 'passive phase' may last for up to 1 hour in a multiparous woman

- Delay is suspected if inadequate progress after 30 minutes of active stage – Review by Obstetrician, change of position, support and encouragement. Syntocinon may be considered if inadequate contractions. Syntocinon can only be prescribed by Middle grade or above in second stage of labour.

- Multiparous women with confirmed delay in the second stage of labour must be seen by an obstetrician who should make a full assessment including an abdominal palpation and vaginal examination before making a decision about the use of Syntocinon

- Diagnosis of delay in the active second stage should be made when it has lasted over 1 hour in the active stage

- **After each review, and if Syntocinon is prescribed An Individual management plan must be documented**

- The use of Syntocinon in second stage, in a multiparous woman must be monitored ***extremely carefully*** therefore the obstetric registrar must document the care plan in the case notes and must also keep the clinical situation under close review.

(**See Flow Chart Appendix 7)**

6.0 Monitoring and Audit

Monitoring and Audit of this guideline will be identified with issues raised via Clinical Risk / Clinical Governance.

Audit:

- Regular audit of the management of Induction of Labour is a mandatory NICE CG70 requirement

- This Audit has been identified as a Priority 2 for the Women's Directorate by the Trust.

- Please see Audit Proforma in Appendix 8

APPENDIX ONE

Process Requirements

1.0 Implementation and Awareness

1.1 Once approved this policy/procedural document will be published on the Trust intranet by the Maternity Compliance & Safety Co-ordinator.

1.2 On publication of any Maternity document, the Maternity Compliance & Safety Co-ordinator or Maternity Secretary will ensure that an email is sent to all Maternity staff and other stakeholders, as appropriate.

1.3 On receipt of notification, all managers should ensure that their staff members are aware of the new publications.

2.0 Review

2.1 It is essential that Trust Policy/procedural documents remain accurate and up to date; this policy/procedural document will be reviewed three years after approval, or sooner if there are changes in practice, new equipment, law, national and local standards that would require an urgent review of the policy/procedure. It is the responsibility of the Document Lead for this policy/procedure to ensure this review is undertaken in a timely manner.

2.2 The Document Lead should review the policy/procedure and, even when alterations have not been made, undertake the consultation process as detailed in **Section 5.5 Consultation** of MTW Policy and Procedure '*Production, Approval and Implementation of Policies and Procedures*'.

3.0 Archiving

3.1 The Trust Intranet retains all superseded files in an archive directory in order to maintain document history.

3.2 Old paper guideline copies pre-dating Datix are stored at:

Chatham Archive & Storage document Co.
Anchor Wharf
Chatham
ME4 4TZ
Telephone: 01634 826665

APPENDIX TWO

CONSULTATION ON: Induction (with Propess and Prostin Gel), Stimulation and Augmentation of Labour

Consultation process – Use this form to ensure your consultation has been adequate for the purpose.

Please return comments to: Miss Ogunnoiki (email: wunmi.ogunnoiki@nhs.net)

By date: Friday, 2 December 2016 *(all documents must undergo a minimum of two weeks consultation)*

Name:	Date sent	Date reply received	Modification suggested? Y/N	Modification made? Y/N
Obstetric Consultants	17/11/2016	9/01/2017	Y	Y
Paediatric Consultants (Guideline Leads)	17/11/2016			
Anaesthetic Consultants (Obstetric)	17/11/2016			
Supervisors of Midwives	17/11/2016	28/11/16	Y	Y
Midwifery Staff via email	17/11/2016			
Head of Midwifery	17/11/2016	18/11/2016	Y	Y
Maternity Risk Manager	17/11/2016			
Team leads	17/11/2016	26/11/16	Y	Y
Matrons – Inpatient and Outpatient Services	17/11/2016			
Delivery Suite Manager	17/11/2016			
Antenatal Ward Manager	17/11/2016	21/11/16	N	N
Obstetric Theatre Lead	17/11/2016			
Obstetric Pharmacy Lead	17/11/2016			

APPENDIX 3

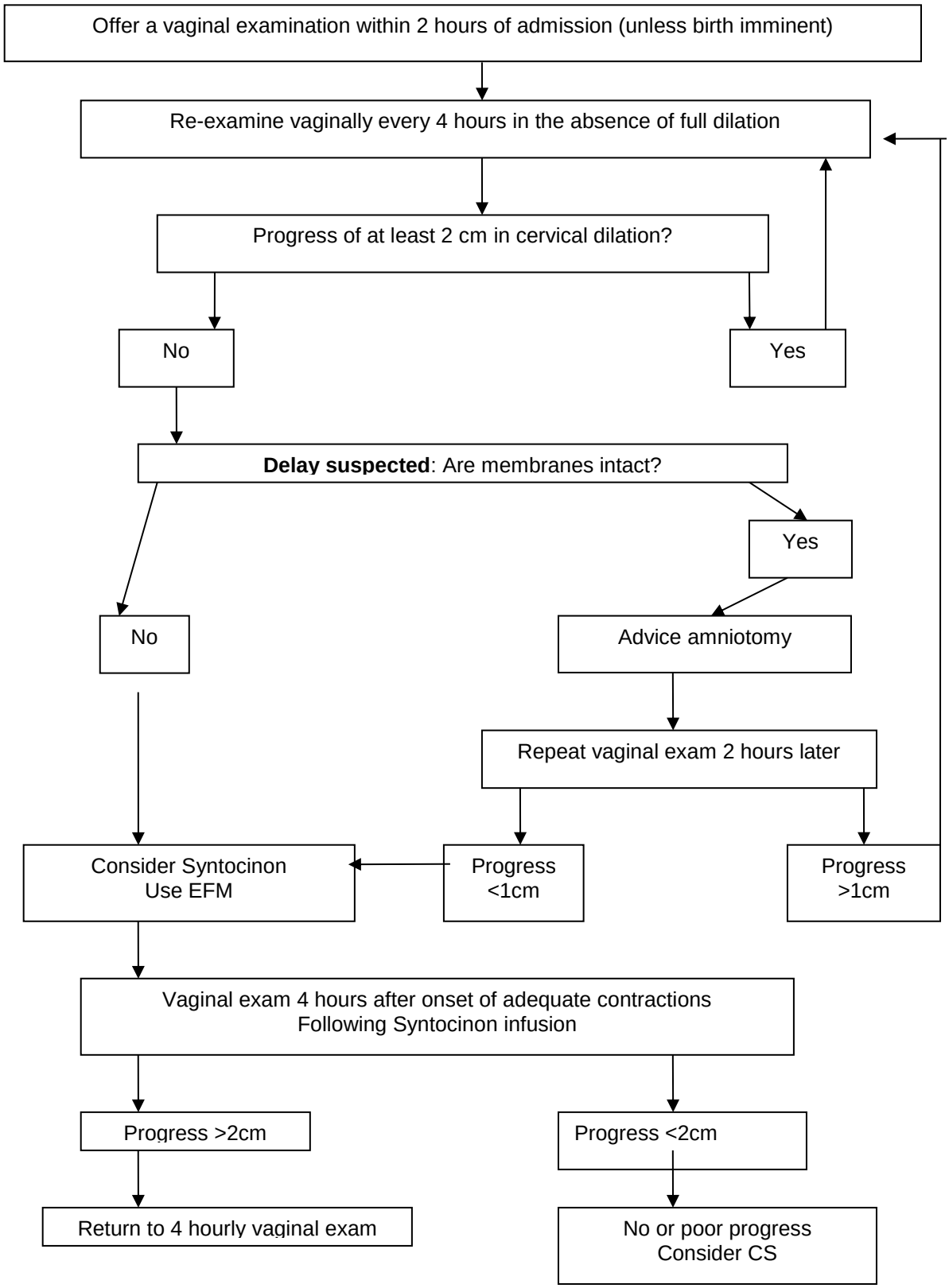
Equality impact assessment

This policy includes everyone protected by the Equality Act 2010. People who share protected characteristics will not receive less favourable treatment on the grounds of their age, disability, gender, gender identity, marital or civil partnership status, maternity or pregnancy status, race, religion or sexual orientation. The completion of the following table is therefore mandatory and should be undertaken as part of the policy development and approval process. **Please note that completion is mandatory for all policy and procedure development exercises.**

Title of policy or practice	Induction (with Propess and Prostin Gel), Stimulation and Augmentation of Labour
What are the aims of the policy or practice?	To ensure best practice care for women receiving maternity care
Is there any evidence that some groups are affected differently and what is/are the evidence sources?	No
Analyse and assess the likely impact on equality or potential discrimination with each of the following groups.	**Is there an adverse impact or potential discrimination (yes/no). If yes give details.**
Gender identity	Context of pregnant women
People of different ages	Context of pregnant women
People of different ethnic groups	No
People of different religions and beliefs	No
People who do not speak English as a first language (but excluding Trust staff)	No – the Trust does offer a Translator Service. Induction leaflets currently only available in English
People who have a physical or mental disability or care for people with disabilities	No
Women who are pregnant or on maternity leave	Context of pregnant women
Sexual orientation (LGBT)	Context of pregnant women
Marriage and civil partnership	No
Gender reassignment	Context of pregnant women
If you identified potential discrimination is it minimal and justifiable and therefore does not require a stage 2 assessment?	YES
When will you monitor and review your EqIA?	Alongside this policy/procedure when it is reviewed.
Where do you plan to publish the results of your Equality Impact Assessment?	As Appendix 3 of this policy/procedure on the Trust approved document management database on the intranet, under 'Trust policies, procedures and leaflets'.

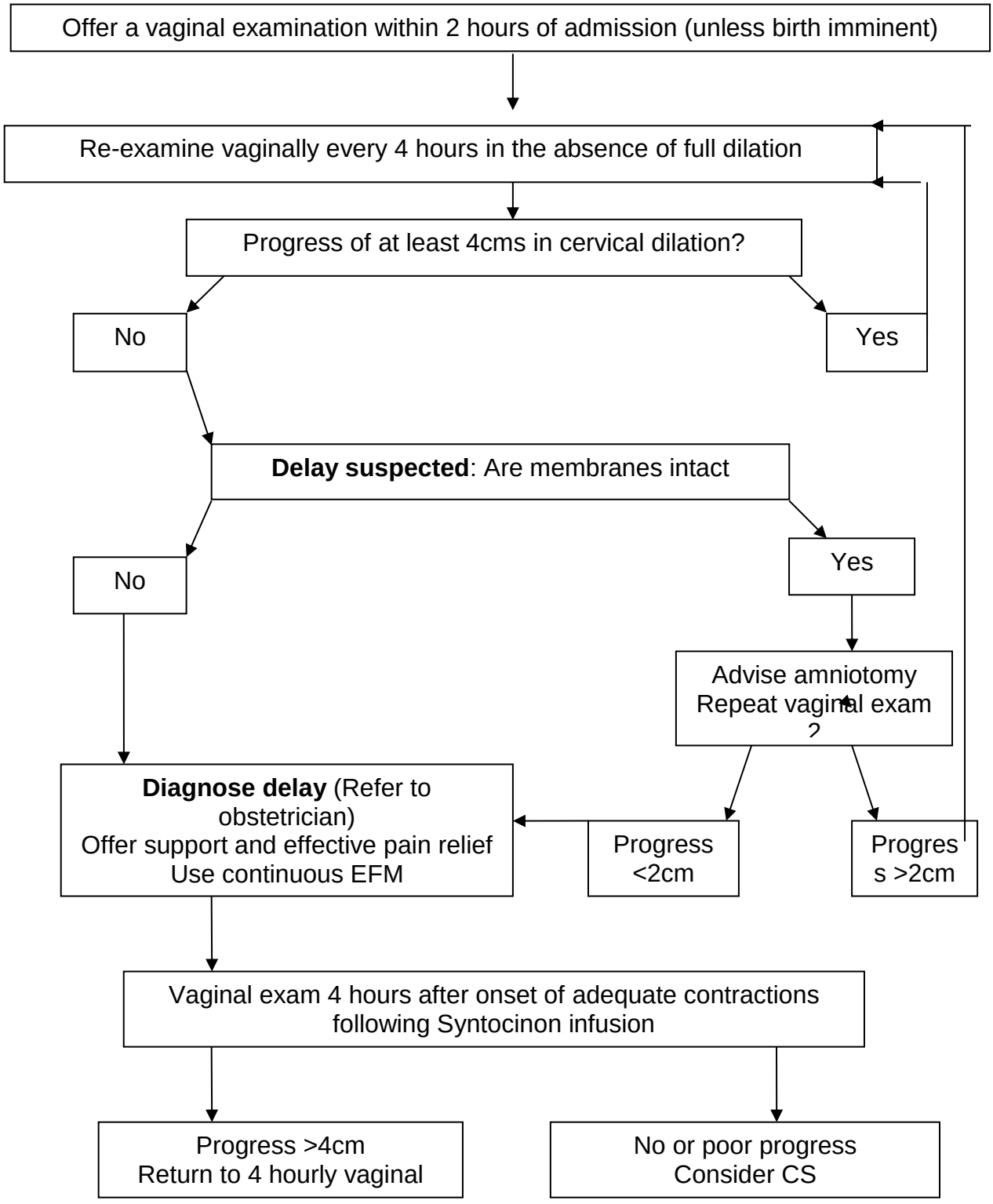
APPENDIX 4

Flow chart showing expected progress, diagnosis of delay and appropriate action of "Low Risk" nulliparous women in First Stage of Labour



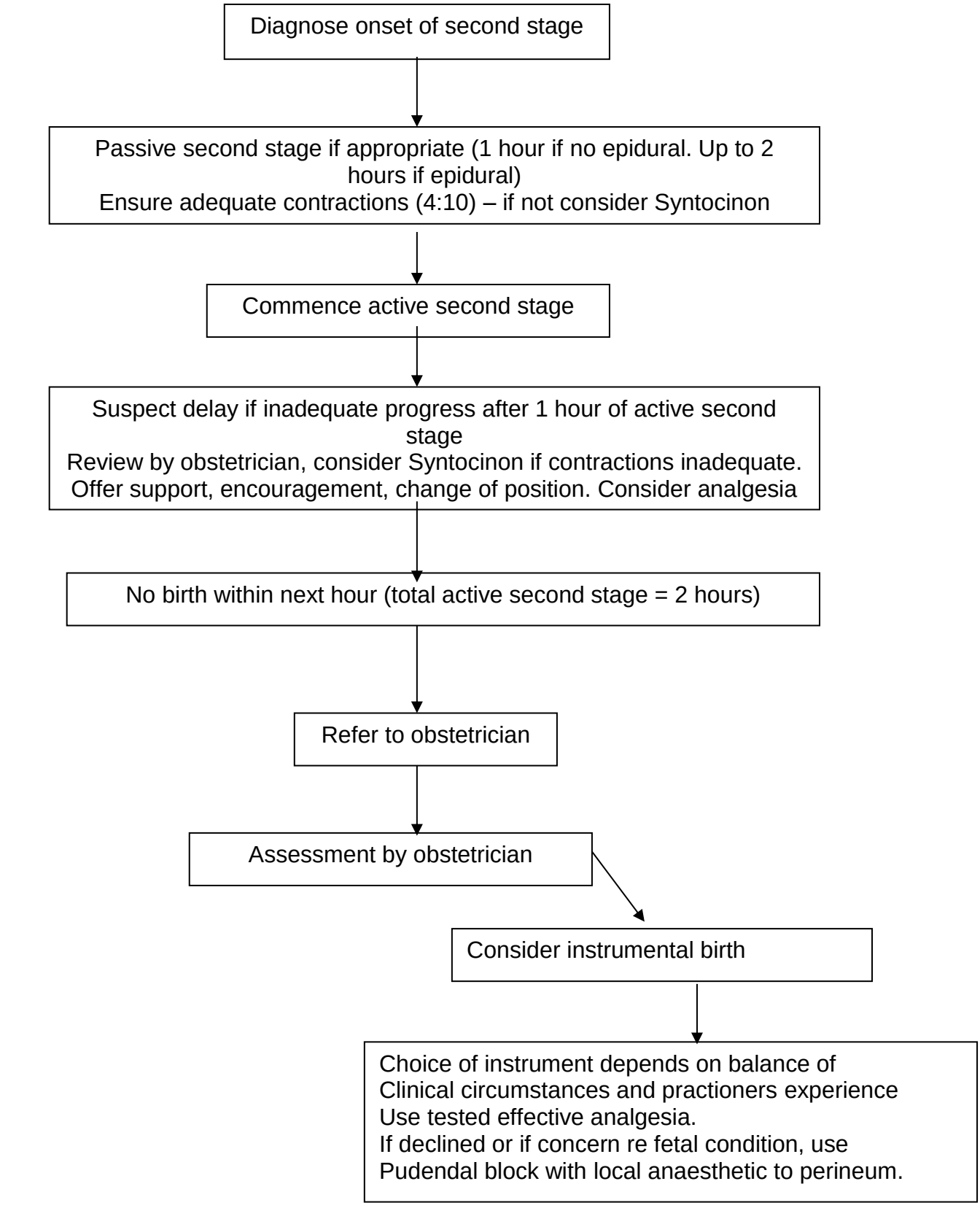
APPENDIX 5

Flow chart showing expected progress, diagnosis of delay and appropriate action for First Stage of Labour (This includes ALL multiparous women and 'increased risk' nulliparous)



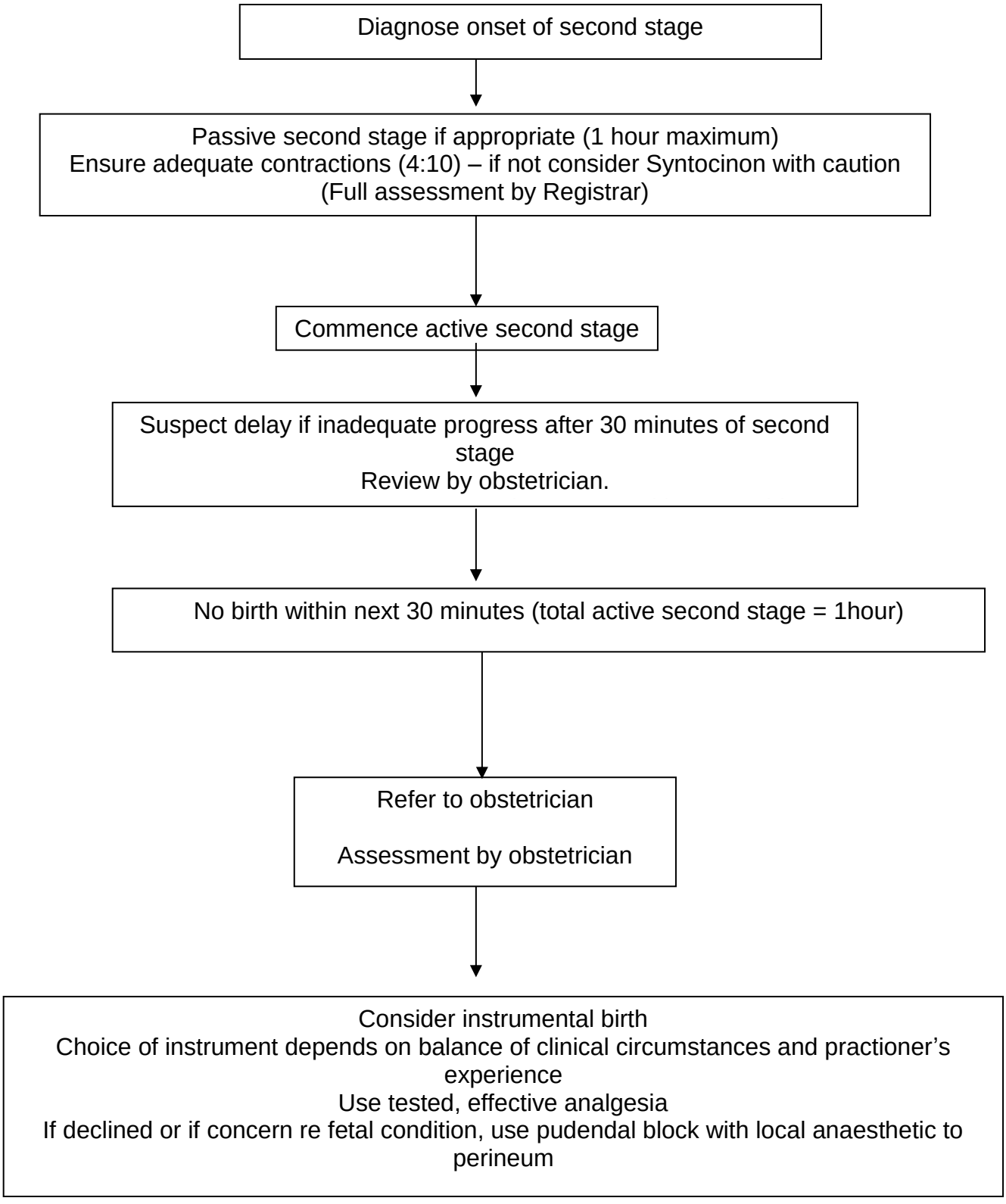
APPENDIX 6

Flow Chart showing expected progress, diagnosis of delay and appropriate action for All Nulliparous woman in Second Stage of labour



APPENDIX 7

Flow Chart showing expected progress, diagnosis of delay and appropriate action for Multiparous woman in Second Stage of labour



Appendix 8

AUDIT PROFORMA

CG70 - IOL Audit Tool.doc

Appendix 9

TABULATED GUIDANCE RE:
When "low risk" women should be asked to return for induction of labour following PROM (applicable to nullips and multips)

TIME OF SROM		RETURN FOR INDUCTION		HOURS POST SROM
0100	Day 0	0800	DAY 1	31
0200	Day 0	0800	DAY 1	30
0300	Day 0	0800	DAY 1	29
0400	Day 0	0800	DAY 1	28
0500	Day 0	0800	DAY 1	27
0600	Day 0	0800	DAY 1	26
0700	Day 0	0800	DAY 1	25
0800	Day 0	0800	DAY 1	24
0900	Day 0	0800	DAY 1	23
1000	Day 0	0800	DAY 1	22
1100	Day 0	0800	DAY 1	21
1200	Day 0	0800	DAY 1	20
1300	Day 0	0800	DAY 1	43
1400	Day 0	0800	DAY 1	42
1500	Day 0	0800	DAY 1	41
1600	Day 0	0800	DAY 1	40
1700	Day 0	0800	DAY 1	39
1800	Day 0	0800	DAY 1	38
1900	Day 0	0800	DAY 1	35
2000	Day 0	0800	DAY 1	36
2100	Day 0	0800	DAY 1	35
2200	Day 0	0800	DAY 1	34
2300	Day 0	0800	DAY 1	33
2400	Day 0	0800	DAY 1	32

This table applies to "low risk" women only.

All women returning within 36 hours do not have to return to the hospital for a CTG.

The time of induction should be written on the Patient Information leaflet and they should be requested to read the advice on when to make contact if they concerns.

2.

		Apr 18	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan 19	Feb	Mar		
Massive PPH >1500mls	No. of women	**17**	**21**	**17**	**22**	**19**	**13**	**15**	**22**	**15**	**18**	**10**	**13**	**202**	Total

Massive PPH >1500mls	% of women	**3.7%**	**3.9%**	**3.5%**	**4.5%**	**3.7%**	**2.7%**	**2.8%**	**4.4%**	**3.1%**	**3.8%**	**2.4%**	**2.8%**	**3.4%**	average

3. 2207 Blood components and blood products were transfused
4. Total cost of all blood or blood products transfused was £122,113.47
5. The total cost was £430,252.77