Prevention of Preterm Birth, Pre Term Labour and Delivery Clinical Guideline

V2.0

April 2020
1. **Aim/Purpose of this Guideline**

1.1. Preterm labour is defined as labour after 24 weeks gestation and before 37 weeks gestation and is a major cause of perinatal morbidity and mortality. This guideline gives guidance to Obstetricians and Midwives on identifying those at risk of preterm labour, the recognition of pre-term labour and the management of established pre-term labour and delivery should this arise.

1.2. This guideline also gives guidance to obstetricians and midwives on the use of Magnesium Sulphate for fetal neuroprotection in pre-term birth, including pre-term labour, induction of labour and emergency caesarean section before 34 weeks gestation.

1.3. This version supersedes any previous versions of this document.

1.4. **Data Protection Act 2018 (General Data Protection Regulation – GDPR) Legislation**

   The Trust has a duty under the DPA18 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed and documented. We can’t rely on Opt out, it must be Opt in.

   DPA18 is applicable to all staff; this includes those working as contractors and providers of services.

   For more information about your obligations under the DPA18 please see the ‘information use framework policy’, or contact the Information Governance Team rch-tr.infogov@nhs.net

2. **The Guidance**

2.1. **Prevention of Preterm Birth in a Singleton Pregnancy**

   2.1.1. **Initial risk assessment**

   All women should be screened at booking for risk factors for Preterm birth. Risk factors for the general population to be aware of include smoking, maternal age under 18 years, domestic violence, urinary tract infections, vaginal infections. To help reduce the risk of preterm labour in these patients groups, ensure that they are offered the appropriate pathways e.g.

   - **Smoking cessation** – inform the woman that smoking doubles the risk of preterm delivery and therefore they should be encouraged to stop and offered referral to Smoking Cessation Team.
   - **Women <18 years** should be informed that they have a higher risk of preterm birth and should be offered support and advice and a referral to WILD made.
• **Domestic violence** – sensitive questioning regarding possible domestic violence and offer referral to IDVA’s if DV is disclosed.

• **Urinary tract infections** – ensure booking MSU is sent, the results checked and any UTI treated. After treatment a further MSU should be sent. Any women with a history of recurrent UTI’s should be referred to their area consultant for a plan.

• **Vaginal infections**, gonorrhoea and chlamydia are associated with preterm birth and screening should be offered to at risk women and the results followed up and acted upon.

**2.1.2. Further risk assessment**

A further risk assessment should be performed to identify a higher risk group of women who should be referred for consultant led care. All women whether high risk or Intermediate risk (see below) should be referred to the consultant clinic. At the consultant clinic women will be offered a transvaginal scan (between 16 and 18 weeks) to assess cervical length after full discussion regarding the implication of this and possible interventions if the cervix is found to be short. If the woman accepts this then a referral to the Fetal Medicine team should be made for this to be performed. It is important to note that there is no evidence for cervical cerclage in low risk women with an incidental finding of shortened cervix on ultrasound. Therefore cervical length scanning should only be offered to women deemed at risk of preterm labour as below.

**2.1.3. High risk group**

- Previous preterm birth or mid-trimester loss (16 to 34 weeks gestation). (These women may be considered for prophylactic vaginal progesterone after discussion with the patient, however there is little data demonstrating an improvement in outcome but no evidence of harm)
- Previous preterm rupture of membranes <34 weeks
- Previous cervical cerclage or history or trachelectomy (these women will be given the option of TV scan for cervical length or further elective cervical cerclage)
- Known uterine variant (unicornuate uterus, significant bicornuate uterus or uterine septum)
- Ashermann’s syndrome

**2.1.3.1.** These women may have more than one cervical length scan depending on the particular history and length of cervix. This will be decided by the Fetal Medicine team. If repeat cervical length scans are felt appropriate this will be at an interval of 2-4 weeks between (16-24 weeks).

**2.1.3.2.** Women with a history of preterm birth should be assessed as to whether this was associated with placental disease and if so should be encouraged to take aspirin 150mg from 12 weeks gestation
2.1.4. Intermediate risk group

- Previous caesarean section at full dilatation
- History of single LLETZ with depth >10mm depth
- More than one LLETZ (irrespective of depth)
- Cone biopsy (by knife or laser, irrespective of depth)

These women should be referred for a single cervical length scan (by the midwife sonographers) and if this is normal no further scans required.

2.1.5. Management of women with a shortened cervix on scan

Management of women with a shortened cervix (<25mm) on TV scan between 16-24 weeks:

- If no history of preterm delivery, P-PROM or cervical trauma – consider prophylactic vaginal progesterone (although limited data showing a benefit to this)
- If previous PPROM or cervical trauma consider cervical suture or prophylactic vaginal progesterone (Cyclogest Vaginal Pessaries PV until 34/40 gestation). Discuss the risk/benefits of both options with the women and make a shared decision on which treatment option is most suitable.
- If previous spontaneous loss or birth (ie delivery 16-34 weeks) – offer prophylactic cervical cerclage or prophylactic vaginal progesterone depending on the woman’s wishes. Discuss the risk/benefits of both options with the women and make a shared decision based on which treatment option is most suitable.

2.1.6. Indications of cervical suture

Offer:
- Rescue suture – if no evidence of chorioamnionitis and no bleeding or contractions
- Previous delivery 16-34 weeks and cervical length <25mm
- Women who have had a previous cervical cerclage
- NB. women who have a previous failed cervical suture (ie delivery <28 weeks) should be considered for an abdominal cervical cerclage
- Women who have had 3 or more losses/births (16-34 weeks)

Consider:
- For women who have a history of preterm rupture of membranes <34 weeks or cervical surgery and cervix <25mm (offer if <15mm)
- Women who have had 2 losses/preterm births (16-34 weeks)

2.1.6.1. Low risk women who have a coincidental finding of a short cervical length should not automatically be offered a cervical suture as there is limited data to support the use of a cervical
suture in this situation. Each case should be individualised and the options discussed with the woman.

2.1.6.2. It is not known whether a cervical suture is beneficial for women who have had a Caesarean section at full dilatation and a short cervix in a subsequent pregnancy. The CRAFT study has been designed to prove the evidence regarding this. RCHT is planning to offer eligible women who have had a CSFD and are found to have a short cervix into this trial once it has been set up. In the meantime there needs to be a discussion with the woman about the potential advantages and disadvantages of cervical suture, prophylactic vaginal progesterone or conservative management so that an informed decision can be made.

2.1.6.3. Women who have required an intervention should remain under consultant led care for the duration of the pregnancy. Women who have had normal cervical length scans, who are otherwise low risk (other than the preterm loss/birth), can be discharged back to midwifery led care.

2.1.7. Rescue Cervical Cerclage

- Do not offer this if signs of infection, active bleeding or uterine contractions
- Consider a rescue cervical cerclage in women from 16 weeks up until 28 weeks who have a dilated cervix and exposed, unruptured fetal membranes.
- This needs to be a consultant decision only
- Risks of the procedure (rupture of membranes, infection, delivery) along with the benefits (aims to delay the birth to increase the likelihood of survival and reduce the risk of serious neonatal morbidity) should be discussed with the woman and an informed choice made.

2.1.7.1. For all women who have had a cervical cerclage a clear plan for suture removal needs to be made and documented in the patient records

2.1.7.2. All women who had had a preterm birth should be advised of the symptoms and signs of preterm labour and advised to contact her midwife if she experiences any of them.

2.2. Diagnosing Preterm Labour

2.2.1. Memoire for routine gestation limits for interventions

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Gestation from 24+0 until:</th>
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<tbody>
<tr>
<td>Magnesium Sulphate</td>
<td>33+6</td>
</tr>
<tr>
<td>Atosiban</td>
<td>33+6</td>
</tr>
<tr>
<td>Steroids</td>
<td>34+6</td>
</tr>
<tr>
<td>Fetal Fibronectin</td>
<td>34+6 (for transfer) 33+6 (for Atosiban)</td>
</tr>
</tbody>
</table>

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2.2.2. Initial management

- Establish accurate gestational age
- Take history to include character of any pain, vaginal loss, fetal movements and any non-obstetric symptoms
- General examination relevant to presenting symptoms
- Abdominal palpation for tenderness, palpable contractions to include strength and length, fundal height, fetal lie, presentation and descent
- Abdominal ultrasound if presentation not clear on palpation
- Mid-stream urinalysis to exclude infection. Send for culture if positive for leucocytes and nitrites and treat with antibiotics pending result (not co-Amoxiclav because of the risk of Necrotising Enterocolitis)
- Consider necessity for Fibronectin testing (See Section 3.3.) before proceeding to vaginal examination

2.2.3. Vaginal Examination

2.2.3.1. Undertake vaginal Cusco speculum to assess the cervix, presence of liquor or blood. Fetal Fibronectin to be undertaken (FFN) if no contraindications (see section 3.3).

2.2.3.2. If pooling of amniotic fluid is observed, do not perform any diagnostic test but offer care consistent with the woman having PPROM (see guideline)

2.2.3.3. If there is uncertainty as to whether the fluid observed is amniotic fluid or discharge consider performing an Actim PROM test if the history is strongly suggestive of PPROM

2.2.3.4. If the Actim PROM is positive, do not use the test results alone to decide what care to offer the woman, but also take into account her clinical condition, her medical and pregnancy history and gestational age, and either:

- offer care consistent with the woman having PPROM
- (re-evaluate the woman's diagnostic status at a later time point.

2.2.3.5. If the Actim PROM is negative or there is no pooling of fluid then explain to the woman that it is unlikely that she has PPROM, but that she should return if she has any further symptoms suggestive of PPROM or preterm labour.

2.2.3.6. Digital vaginal examination (if PPROM or placenta praevia not suspected) for cervical consistency, position, station of presenting part, effacement and dilatation. This should not be performed prior to FFN
2.2.4. Fibronectin Testing

2.2.4.1. Who to Test
- Women who are being considered for tocolysis
- Women who are being considered for in utero transfer
- Fibronectin levels are higher in multiple pregnancies so thresholds for treatment are more likely to be reached. However, a low level may assist conservative management (New 2018)

2.2.4.2. Contraindications to Testing
- Vaginal bleeding (microscopic spots of blood cause false positive tests)
- Ruptured membranes (amniotic fluid contains a large amount of Fibronectin)
- Intercourse or vaginal examination with lubricant with the last 24 hours (false positives more likely, although negative result still useful)
- Gestation <24 weeks or >34+6 weeks

2.2.4.3. How to Test (See Appendix 3)
- Read the instructions in the kit prior to commencing
- Perform a speculum examination to visualise the cervix. DO NOT use lubricants, use tap water
- Gently soak the swab in the secretions of the posterior vaginal fornix for 10 seconds, avoiding getting large amounts of mucus on the swab
- Process the swab according to the kit instructions

2.2.4.4. Interpretation of Fibronectin Results
Use quantitative fetal fibronectin when interpreting fibronectin results and counselling patients. The positive predictive value increases with increasing fibronectin results. When considering steroids or intrauterine transfer use a threshold of 200.

<table>
<thead>
<tr>
<th>fFN level</th>
<th>N (%)</th>
<th>≤ 7 days</th>
<th>≤ 14 days</th>
<th>≤ 34 weeks</th>
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<tr>
<td>&lt; 10 ng/ml</td>
<td>170 (57%)</td>
<td>1%</td>
<td>1.8%</td>
<td>1.5%</td>
</tr>
<tr>
<td>11-49 ng/ml</td>
<td>62 (21%)</td>
<td>0%</td>
<td>1.6%</td>
<td>8.2%</td>
</tr>
<tr>
<td>50-199 ng/ml</td>
<td>41 (14%)</td>
<td>0%</td>
<td>7.7%</td>
<td>11.5%</td>
</tr>
<tr>
<td>200-499 ng/ml</td>
<td>14 (5%)</td>
<td>14%</td>
<td>29%</td>
<td>33%</td>
</tr>
<tr>
<td>≥500 ng/ml</td>
<td>13 (4%)</td>
<td>38%</td>
<td>46%</td>
<td>75%</td>
</tr>
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</table>

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2.3. Administration of Corticosteroids

2.3.1. Maternal antenatal corticosteroids reduce the risk of neonatal respiratory distress syndrome, intraventricular haemorrhage and death. Optimal benefit is observed if delivery is between 24 hours and 7 days of administration but benefits may occur before and after these times.

2.3.2. The decision to prescribe steroids should be made by an experienced obstetrician. It is a balance between the clear benefits of the medication and the potential to waste that benefit if given when likelihood of delivery is low (especially for the women who deliver >2 weeks later and still <34+6 weeks). Steroids will usually be given only after objective evidence of cervical change but in cases of a convincing past and present history this is not mandatory.

2.3.3. Steroids should be offered at 24+0-34+6 weeks gestation to women at risk of preterm birth. The decision to prescribe them at earlier gestations should be made by the Obstetric Consultant with input from the neonatal team.

2.3.4. Dexamethasone/Betamethasone 12mg IM, two doses, 24 hours apart should be administered.

2.3.5. DO NOT reduce the interval between doses to 12 hours. There is no evidence of additional benefit and the benefit of the second dose may be wasted (receptors may still be saturated by the first dose).

2.3.6. For women with diabetes please see Management of Diabetes in Pregnancy Guideline.

2.4. Tocolysis

2.4.1. Using Tocolysis
RCOG guidance states that it is reasonable not to use tocolytic drugs, as there is no clear evidence that they improve outcome. However both NICE and RCOG recommend tocolysis should be considered to complete a course of steroids or for intrauterine transfer providing there are no contraindications.

2.4.2. Atosiban (Tractocile®) is the tocolytic of choice
- Licensed for use in pregnancy to delay preterm delivery
- Oxytocin antagonist
- IV administration
- Initial bolus, then high dose infusion for 3 hours followed by low dose infusion for <45 hours
- Half-life is 13 minutes so there is no additional risk of Post-Partum Haemorrhage.
- If contractions re-commence after Atosiban has been stopped, it can be restarted if steroid course is incomplete.
2.4.3. **Atosiban Side Effects**
Nausea is very common (decreased by giving bolus slowly). Hyperglycaemia headache and dizziness, tachycardia, hot flush, hypotension, vomiting and injection site reaction are common. Insomnia, pruritis, rash, pyrexia and allergic reaction are uncommon.

2.4.4. **Prerequisites for Using Atosiban**
- Regular uterine contractions lasting 30 seconds at a rate of ≥ 4 in 30 minutes
- Cervical dilation of 0 to 3 cm
- Gestation from 24+0 to 33+6 weeks
- Normal fetal heart rate
- Fetal Fibronectin >200units (if appropriate to test)
- Agreement from consultant on call (who may also consider use at >3cm, <24weeks or >33+6 weeks)

2.4.5. **Prerequisites Discussion and Documentation of risks and benefits with verbal consent.**
Acknowledge absence of licence for Preterm Pre Labour Rupture of Membranes (PPROM) < 30 weeks and limited experience of use in multiple pregnancies.

2.4.6. **Contra-indications to Using Atosiban**
- Fetal Fibronectin <200ng/ml
- Evidence of fetal compromise
- Intrauterine infection
- Any maternal or fetal condition that warrants delivery (e.g. pre-eclampsia)
- Known hypersensitivity to Atosiban or any of the contents in Tractocile®

2.4.7. **Relative Contra-indications to using Atosiban**
- Rupture of membranes –unless requiring transfer out to another unit
- Antepartum haemorrhage, unless reviewed by an Obstetric Consultant
- Fetal Growth Restriction
2.4.8. **Administration of Atosiban**

Give 6.75mg (0.9ml of 7.5mg/ml of solution from vial) IV over 1 minute via a 1ml syringe

```
Prepare infusion in 0.9% sodium chloride
Withdraw 10ml from 100ml bag and discard
Add 10ml of 7.5mg/ml concentrate
(From 2 vials) to the bag and mix well*
Resulting solution contains 750micrograms/ml
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Set pump to run infusion at **24ml/hr for 3 hours**
I.e. set ‘volume to be infused’ to 72ml
When pump alarms at end of 72 ml **DO NOT discard remaining solution**

Decrease rate to **8ml/hr**

*For subsequent bags withdraw 5ml from a 50ml 0.9% sodium chloride bag and discard

Add 5ml of 7.5mg/ml concentrate (i.e. 1 vial) to the bag and run at **8ml/hour** for 50ml
- Discontinue if labour establishes
- Review after 24 hours. In most cases, discontinuation is reasonable
- Total duration of treatment should not exceed 48 hours

2.4.9. **Monitoring whilst on Atosiban**
- MEOWS chart record maternal blood pressure every 15 minutes for the first hour then hourly until the infusion rate is reduced. Then continue 4 hourly.
- Blood Glucose at start of treatment and 4 hourly thereafter
- A plan for the assessment of fetal wellbeing should be determined by the
- Obstetrician and will depend on gestation and cause for preterm labour
2.5. Magnesium Sulphate

2.5.1. Magnesium Sulphate should be considered in women in established preterm labour (cervical dilatation of >4cm with regular contractions) or having a planned preterm delivery 24 and 33+6 weeks gestation.

2.5.2. Magnesium Sulphate given to mothers shortly before delivery reduces the risk of cerebral palsy and protects gross motor function in those infants born preterm. The effect may be greatest at early gestations (<30 weeks) and is not associated with adverse long-term fetal or maternal outcome.

2.5.3. Regime: (New 2019)

**Loading dose: Magnesium Sulphate 4 grams**
- Draw up 20mls of MgSO4 20% (4grams) (New 2019)
- Give manually over 5 minutes IV. (New 2019)

**Maintenance dose: Magnesium Sulphate 1 gram per hour**
- Draw up 50mls (10 grams) of MgSO4 20%
- Give IV using syringe driver at rate of 5mls/hour

2.5.4. If there is a supply issue with 20% MgSO4 then see Appendix 3
- If delivery is imminent it is appropriate to give only the loading dose
- For a planned LSCS delivery start the regime 4 hours prior to expected delivery time

2.5.5. Care of the Women

2.5.6.1. Women should receive routine care for pre-term labour; this should be recorded on a partogram and on the obstetrics pages.

2.5.6.2. In addition a MEOWS chart must be commenced for hourly maternal observations of temp, respiratory rate, pulse and blood pressure, tendon reflexes, fluid intake and urine output. If the MEOWS score begins to rise, there are any concerns about urinary output or tendon reflexes are slow or are absent there must be a medical review.

2.5.6.3. Women should be advised of an increased risk of hypotension and tachycardia and minor adverse effects, such as facial flushing, nausea, vomiting, sweating and injection site problems.

2.5.6.4. If there are signs of magnesium toxicity (oligouria, respiratory depression or supressed/absent reflexes), medical review should be requested and if this is not possible the infusion stopped. Calcium Gluconate should be used if evidence of magnesium toxicity.

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2.6. Fetal Monitoring

2.6.1. There is an absence of evidence that the use of cardiotography (CTG) improves the outcome for a preterm baby compared with intermittent auscultation. A woman in established preterm labour with no other risk factors, after discussion about the role of different monitoring, can be offered a choice of either continuous CTG or intermittent auscultation. Additional risk factors include maternal hypertension, meconium stained liquor, fresh vaginal bleeding, suspected chorioamnionitis, oxytocin use or prolonged rupture of membranes.

2.6.2. In high risk cases CTG should be used from 28/40. Prior to this gestation the decision about fetal monitoring should be made by a senior obstetrician and in some circumstances no monitoring may be appropriate.

2.6.3. Fetal scalp electrodes should not be routinely used prior to 34/40

2.6.4. Fetal blood sampling should not be performed prior to 34/40 and with caution under 37 weeks gestation.

2.6.5. ST Analysis should not be used prior to 36 weeks

2.7. Management of Labour and Delivery

2.7.1. If cephalic presentation and no additional risk factors aim for a vaginal birth. The safety of ventouse delivery prior to 36/40 is uncertain, and it is contraindicated prior to 34/40

2.7.2. The decision about mode of delivery in non-vertex presentations should be made with the on call obstetric consultant after a consideration of the risks and benefits of caesarean section.

2.7.3. Ensure neonatal team are present at delivery

2.7.4. If mother and baby are stable, delay cord clamping for 3mins- ensure baby is positioned level or below the placenta prior to cord clamping.

2.7.5. If immediate cord clamping is required consider milking the cord

2.7.6. Keep cord long as it may be required for venous access

2.7.7. Babies delivered at less than 32/40 gestation should be placed in a plastic bag without drying, a hat placed on baby’s head (after drying) and nursed under a heat source.

2.8. IV antibiotics for labour

2.8.1. All women, irrespective of Group B Streptococcus (GBS) history or status, should be offered Intrapartum antibiotic prophylaxis (IAP), to
prevent a possible transmission of GBS, once labour has established with regular contractions and cervical dilatation > 4cm. This is regardless of PPROM or intact membranes (NEW 2017)

2.8.2. Antibiotics should not be offered for threatened preterm labour in the absence of membrane rupture (NEW 2017)

2.8.3. IAP is not required for preterm caesarean section in the absence of membrane rupture (New 2017)

2.9. Neonatal Issues

2.9.1. Inform Neonatal Unit of threatened / established preterm labour

2.9.2. An experienced neonatal practitioner should discuss anticipated neonatal management with the woman and her partner

2.9.3. The decision for in utero transfer should be made after discussion with Consultant Obstetrician and Neonatologist

2.9.4. Management of extremes of viability should involve the Consultant Obstetrician and Neonatologist in discussion with the parents. Ideally with a current ultrasound determined EFW.

2.9.5. If the gestation is certain, resuscitation is usually commenced >24/40 and the neonatal team should attend delivery. Below 23/40 it is generally considered not in the best interests of the baby to commence resuscitation and neonatal attendance is not required. Gestations of 23<sup>0</sup>-23<sup>6</sup> the decision to commence resuscitation is individualised.
3. Monitoring compliance and effectiveness

| Element to be monitored | Atosiban  
| Magnesium Sulphate Regime  
| Antibiotics for pre-term labour |
| Lead | Obstetric Audit Lead |
| Tool | Women who receive Atosiban fit the criteria as identified in the guideline  
| Are all women who present in established pre-term labour offered Magnesium Sulphate  
| Are all women in established pre-term labour offered intrapartum antibiotics  
| Is a MEOWS chart commenced for hourly maternal observations of temp, respiratory rate, pulse, blood pressure, tendon reflexes, fluid intake and urine output  
| Recorded on an audit and review tool using patient documentation. |
| Frequency | 10 sets of notes. Further audit to be commenced if need identified through Patient Safety process |
| Reporting arrangements | To be presented at perinatal audit meeting |
| Acting on recommendations and Lead(s) | Any deficiencies identified will be discussed at the Patient Safety Meeting and clinical audit forum and an action plan developed  
| An action plan lead will be identified and a time frame for the action  
| The action plan will be monitored by the Patient Safety Meeting and clinical audit forum |
| Change in practice and lessons to be shared | Required changes to practice will be identified and actioned within a time frame agreed on the action plan  
| A lead member of the forum will be identified to take each change forward where appropriate.  
| The results will be distributed to all staff through the Patient Safety newsletter/audit forum as per the action plan. |

4. Equality and Diversity

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the ‘Equality, Diversity & Human Rights Policy’ or the Equality and Diversity website.

4.2. Equality Impact Assessment
The Initial Equality Impact Assessment Screening Form is at Appendix 2.
## Appendix 1. Governance Information

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Prevention of Preterm Birth, Pre Term Labour and Delivery Clinical Guideline V2.0</th>
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<tbody>
<tr>
<td>Date Issued/Approved:</td>
<td>12th March 2020</td>
</tr>
<tr>
<td>Date Valid From:</td>
<td>April 2020</td>
</tr>
<tr>
<td>Date Valid To:</td>
<td>April 2023</td>
</tr>
<tr>
<td>Directorate / Department responsible (author/owner):</td>
<td>Karen Watkins &amp; Rob Holmes Consultant Obstetrician</td>
</tr>
<tr>
<td>Contact details:</td>
<td>01872 252270</td>
</tr>
<tr>
<td>Brief summary of contents</td>
<td>This guideline gives guidance to Obstetricians and Midwives on identifying those at risk of preterm labour, the recognition of pre-term labour and the management of established pre-term labour and delivery should this arise. This guideline also provides guidance for the use of magnesium sulphate prior to pre-term Caesarean Section</td>
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<td>Suggested Keywords:</td>
<td>Pre-term labour, premature birth, fetal Fibronectin, Atosiban, Magnesium Sulphate, neuro protection, steroids</td>
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<td>Target Audience</td>
<td>RCHT  CFT  KCCG</td>
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<tr>
<td>Executive Director responsible for Policy:</td>
<td>Medical Director</td>
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<tr>
<td>Date revised:</td>
<td>March 2020</td>
</tr>
<tr>
<td>This document replaces (exact title of previous version):</td>
<td>Pre Term Labour and Delivery Clinical Guideline V1.7</td>
</tr>
<tr>
<td>Approval route (names of committees)/consultation:</td>
<td>Maternity Guidelines Group Obs and Gynae Directorate Divisional Board Policy Review Group</td>
</tr>
<tr>
<td>Care Group Manager confirming approval processes</td>
<td>Debra Shields, Care Group Manager</td>
</tr>
<tr>
<td>Name and Post Title of additional signatories</td>
<td>Not required.</td>
</tr>
<tr>
<td>Name and Signature of Care Group / Directorate Governance Lead confirming approval by specialty and divisional management meetings</td>
<td>{Original Copy Signed} Name: Caroline Amukusana</td>
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### Signature of Executive Director giving approval

{Original Copy Signed}

### Publication Location (refer to Policy on Policies – Approvals and Ratification):

Internet & Intranet  ✔️ Intranet Only

### Document Library Folder/Sub Folder

Clinical / Midwifery and Obstetrics

### Links to key external standards

CNST 2.1

- RCOG Clinical guideline No 60 (2011). Cervical Cerclage
- RCHT Clinical guideline (2014) Newborn Life Support
- The Management of Babies born Extremely Preterm at less than 26 weeks of gestation A Framework for Clinical Practice at the time of Birth (2008). British Association of Perinatal Medicine
- Antenatal Corticosteroids to prevent Respiratory Distress Syndrome Clinical Guideline (2004) RCOG
- Prevention of Early Onset Neonatal Group B Streptococcal Disease – Clinical Guideline (2003) RCOG
- Operative Vaginal RCOG, SAC
Training Need Identified? Robust plan in place to ensure widespread communication of change, no training required

Version Control Table

<table>
<thead>
<tr>
<th>Date</th>
<th>Version No</th>
<th>Summary of Changes</th>
<th>Changes Made by (Name and Job Title)</th>
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<td>January 2007</td>
<td>V1.0</td>
<td>Initial issue</td>
<td>Mr R Holmes, Consultant Obstetrician</td>
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<tr>
<td>November 2010</td>
<td>V1.1</td>
<td>Addition of Atosiban and Fetal Fibronectin</td>
<td>Mr R Holmes, Consultant Obstetrician</td>
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<tr>
<td>March 2012</td>
<td>V1.2</td>
<td>Addition of Magnesium Sulphate regime</td>
<td>Dr Karen Watkins, Consultant Obstetrician and Jan</td>
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<tr>
<td>20th January 2016</td>
<td>V1.3</td>
<td>Minor changes including advice on Interpretation of Fibronectin results and Deferred Cord Clamping.</td>
<td>Dr Karen Watkins, Consultant Obstetrician</td>
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<td>17th February 2017</td>
<td>V1.4</td>
<td>Updated in line with latest NICE, 2016 evidence (cervical screening) and merged with Magnesium Sulphate for Fetal Neuroprotection</td>
<td>Mr Rob Holmes, Consultant Obstetrician</td>
</tr>
<tr>
<td>7th December 2017</td>
<td>V1.5</td>
<td>Section 2.8; updated in line with latest RCOG guidance</td>
<td>Mr Rob Holmes, Consultant Obstetrician</td>
</tr>
<tr>
<td>10th August 2018</td>
<td>V1.6</td>
<td>Minor addition-Fibronectin levels are higher in multiple pregnancies so thresholds for treatment are more likely to be reached.</td>
<td>Mr Rob Holmes, Consultant Obstetrician</td>
</tr>
<tr>
<td>7th February 2019</td>
<td>V1.7</td>
<td>Amendments to MgS04 regime following a National Patient Safety Alert and appendix 4 added in case previous regime needing to be followed in the rare instance of the new ampule not being available</td>
<td>Sophie Haynes, Consultant Obstetrician</td>
</tr>
<tr>
<td>12th March 2020</td>
<td>V2.0</td>
<td>Updated to latest Trust template and full review with updates to all of Section 2.1 Prevention of Preterm Birth in a Singleton Pregnancy.</td>
<td>Sophie Haynes, Consultant Obstetrician</td>
</tr>
</tbody>
</table>
### Name of the strategy / policy / proposal / service function to be assessed
Prevention of Preterm Birth, Pre Term Labour and Delivery Clinical Guideline V2.0

<table>
<thead>
<tr>
<th>Directorate and service area:</th>
<th>Is this a new or existing document:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obs &amp; Gynae Directorate</td>
<td>Existing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of individual completing assessment:</th>
<th>Telephone:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rob Holmes</td>
<td>01872 250000</td>
</tr>
</tbody>
</table>

#### 1. Policy Aim*
*Who is the strategy / policy / proposal / service function aimed at?*
This guideline gives guidance to Obstetricians and Midwives on the recognition of pre-term labour, how to arrest pre-term labour and the management of established pre-term labour and delivery should this arise.

#### 2. Policy Objectives*
To ensure threatened or suspected pre-term labour is managed in line with current evidence based practice.

#### 3. Policy – intended Outcomes*
To identify pre-term labour early enough to arrest it and if labour progresses to achieve the best possible outcome for the pre-term baby.

#### 4. *How will you measure the outcome?*
Compliance Monitoring Tool

#### 5. Who is intended to benefit from the policy?
Women in preterm labour

#### 6a Who did you consult with

<table>
<thead>
<tr>
<th>Workforce</th>
<th>Patients</th>
<th>Local groups</th>
<th>External organisations</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### b). Please identify the groups who have been consulted about this procedure.
Maternity Guidelines Group
Obstetrics and Gynaecology Directorate
Policy Review Group
Divisional Board

What was the outcome of the consultation?
Guideline agreed

7. The Impact
Please complete the following table. **If you are unsure/don’t know if there is a negative impact you need to repeat the consultation step.**

<table>
<thead>
<tr>
<th>Equality Strands:</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
<th>Rationale for Assessment / Existing Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td>All women in threatened or established pre-term labour</td>
</tr>
</tbody>
</table>

Prevention of Preterm Birth, Pre Term Labour and Delivery Clinical Guideline V2.0
<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (male, female, trans-gender / gender reassignment)</td>
<td>X</td>
<td>All women in threatened or established pre-term labour</td>
</tr>
<tr>
<td>Race / Ethnic communities /groups</td>
<td>X</td>
<td>All women in threatened or established pre-term labour</td>
</tr>
<tr>
<td>Disability - Learning disability, physical impairment, sensory impairment, mental health conditions and some long term health conditions.</td>
<td>X</td>
<td>All women in threatened or established pre-term labour</td>
</tr>
<tr>
<td>Religion / other beliefs</td>
<td>X</td>
<td>All women in threatened or established pre-term labour</td>
</tr>
<tr>
<td>Marriage and Civil partnership</td>
<td>X</td>
<td>All women in threatened or established pre-term labour</td>
</tr>
<tr>
<td>Pregnancy and maternity</td>
<td>X</td>
<td>All women in threatened or established pre-term labour</td>
</tr>
<tr>
<td>Sexual Orientation, Bisexual, Gay, heterosexual, Lesbian</td>
<td>X</td>
<td>All women in threatened or established pre-term labour</td>
</tr>
</tbody>
</table>

**You will need to continue to a full Equality Impact Assessment if the following have been highlighted:**
- You have ticked “Yes” in any column above and
- No consultation or evidence of there being consultation - this excludes any policies which have been identified as not requiring consultation. or
- Major this relates to service redesign or development

8. Please indicate if a full equality analysis is recommended.  | Yes | No | X

9. If you are not recommending a Full Impact assessment please explain why.

No areas indicated

<table>
<thead>
<tr>
<th>Date of completion and submission</th>
<th>12th March 2020</th>
<th>Members approving screening assessment</th>
<th>Policy Review Group (PRG)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Approved</td>
<td>Approved</td>
</tr>
</tbody>
</table>

This EIA will not be uploaded to the Trust website without the approval of the Policy Review Group.

A summary of the results will be published on the Trust’s web site.
Appendix 3. Procedure for Fibronectin Swabs

- **Fibronectin swab indicated do NOT do a VE**

- **Symptoms of preterm labour, for tocolysis or for inutero transfer**

- **No contraindications to Fibronectin swab**

- **Contraindications are: <24 weeks gestation, bleeding, rupture of membranes**

- **Visualise cervix with a speculum (do not use a lubricant for the speculum, use water only)**

- **Do not proceed if visible bleeding or if ruptured membranes (ROM)**

- **If no bleeding or ROM then ask for assistance to open swab from Fibronectin swab kit, soak swab in secretions in posterior fornix for 10 seconds**

- **Place patient ID label and date on the sheet of paper in the swab box to allow audit of the swab use**

- **Electronic analyser**

- **Agitate swab in buffer solution and remove**

- **Enter Patients details, User ID and cassette lot into analyser and press Enter. Insert cassette and press Enter**

- **Pipette 200µL from buffer solution into well of cassette and Press Enter**

- **Print Result from analyser. Stick 1 result in patient records and 1 in the diary**
Appendix 4. When MgSo4 20% is unavailable

If MgSo4 20% is unavailable please use 50% MgSo4 following the same Regimen:

**Magnesium Sulphate Regimen:** Magnesium Sulphate (MgSO₄) is the treatment of choice for the first fit.

**Loading dose: Magnesium Sulphate 4 grams**
- 8mls of MgSO4 (50%) diluted with 12mls Normal Saline (0.9%)
  = Total 20mls
- Give IV over 20 minutes using syringe driver rate of 60 mls/hour

**Maintenance dose: Magnesium Sulphate 1 gram per hour**
- 20mls MgSO4 (50%) diluted with 30mls Normal Saline (0.9%)
  = Total 50mls
- Give IV using syringe driver at rate of 5mls/hour