Pre-Term Labour Prevention - Full Clinical Guideline

Reference No.: UHDB/MAT/09:22/C4

Contents

1. Introduction

Preterm birth (PTB), defined as delivery at less than 37+0 week's gestation, is a common complication of pregnancy, comprising around 8% of births in England and Wales. It is the most important single determinant of adverse infant outcome with regards to survival and quality of life. Babies born preterm have high rates of early, late, and post-neonatal mortality and morbidity, (SBLCB-V2-2019).

Recent UK studies comparing cohorts born in 1995 and 2006 have shown improved rates of survival (from 40% to 53%) for extreme preterm births (born between 22 and 26 weeks).Rates of disability in survivors were largely unchanged over this time period. NICE (Preterm labour and birth (NG25)

2. Purpose and Outcomes

To give the health care professionals the knowledge to identify women who may have cervical insufficiency and refer appropriately.
It will help with discussion of the risk and benefit s of management option including cervical length scanning and cervical cerclage.

3. Abbreviations

CRP	-	C-Reactive protein
LLETZ	-	Large loop excision of the transformation zone
PTB	-	Pre-Term Birth
PPROM	-	Pre-Term Pre-labour Ruptures of Membrane
PR	-	Per Rectum
RCOG	-	Royal College of Obstetricians & Gynaecologists
TV	-	Trans Vaginal
WBC	-	White Blood Count

4. Key Responsibilities and Duties

All medical staff and midwives are responsible for identifications of these high risk women and ascertain to follow the care pathway.

5. Documentation

Please ensure all assessments and individual plans of care are documented clearly in the appropriate records which may include some or all of those listed below

- medical records
- maternity hand held records
- Lorenzo

6. Identification of Patients

At booking visit with the CMW, Any women with identified risk factors needs referral to general ANC, to be seen with dating scan, those women with high risk of PTB needs referral to PPC (Preterm prevention Clinic) in RDH and to consultant with interest in preterm birth prevention in Burton site

Referral pathway for women at risk of preterm birth:

At booking by community midwife:

- Risk assessment to be completed for all women (click here for full AN care guidelines)
- If any preterm risk factor identified for CLC booking by 12 weeks with most appropriate consultant based on risk identified.

At consultant booking:

- Review risk factors
- Define risk as high risk or intermediate risk
- Management pathway as per 7 below to be clearly documented
- Signs of preterm labour should be communicated to the woman or birthing person.
- Women or birthing people with a history of preterm birth should be reviewed to see if LDA is required from 12 weeks.

High risk
☐ Previous spontaneous preterm birth or mid-trimester loss between **16 weeks+0 days & 33 weeks + 6** days weeks gestation ☐ Previous prelabour rupture of membranes prior to 34 weeks ☐ Previous use of cervical cerclage ☐ Known uterine variant (e.g. unicornuate, bicornuate uterus or uterine septum) ☐ Intrauterine adhesions (Ashermann's syndrome) ☐ History of trachelectomy (for cervical cancer)
Intermediate risk

- Previous delivery by caesarean section at full dilatation
- History of significant cervical excisional event i.e. LLETZ where >10mm depth removed or > 1 LLETZ procedure carried out or cone biopsy (UK Preterm Clinical Network)

7. Pathway and Surveillance:

High Risk	1) Referral to local Preterm prevention clinic or preterm special interest consultant by 12 weeks. 2) Further risk assessment based on history +/- examination as appropriate in secondary care with identification of women needing referral to tertiary services. 3) All women to be offered transvaginal cervix scanning as a secondary screening test to more accurately quantify risk **every 2-4 weeks from 16 weeks.**
Intermediate Risk	1) To remain under consultant led care with no need to transfer to Preterm specialist consultants. 2) Further risk assessment based on history +/- examination as appropriate in secondary care with discussions of option of additional screening tests, including: A single transvaginal cervix scan between **18 and 22 weeks as a minimum** Additional use of fetal fibronectin in asymptomatic women can be considered when available

8. Managements

The timing of cervical length scanning is according to individual patient history, however commonly the scanning are performed between **16 and 24 weeks gestation** by a fetal medicine consultants in RDH and sonographers trained in the performance of transvaginal cervical ultrasound in QHB.

Women with a history of one or more spontaneous mid-trimester losses or PTL who are undergoing TV surveillance of cervical length should be offered an ultrasound indicated cerclage if the cervix is 25 mm or less and before 24 weeks of gestation. Where screening is because of previous cervical surgery in the absence of preterm delivery, the practitioner may advise ongoing conservative management for those with an initial borderline-short cervix which undergoes no further change.

9. Prophylactic Cervical Cerclage and Prophylactic Vaginal Progesterone

Offer a choice of either prophylactic vaginal progesterone or prophylactic cervical cerclage to women with a history of spontaneous PTB or mid-trimester loss between 16- 34 weeks of pregnancy and in whom a transvaginal ultrasound scan has been carried out between 16-24 weeks of pregnancy that reveals a cervical length of less than 25 mm.

Discuss the risks and benefits of both options with the woman, and make a shared decision on which treatment is most suitable. **[NICE-2019]**

Counselling should also be given to the women, highlighting the signs and symptoms of preterm labour.

Consider prophylactic vaginal progesterone for women who have either: a history of spontaneous PTB (up to 34+0 weeks) or mid-trimester loss (from 16+0 weeks of pregnancy onwards) **or** results from a transvaginal ultrasound scan carried out between 16+0 and 24+0 weeks of pregnancy that show a cervical length of 25 mm or less. **[NICE-2019]**
When using vaginal progesterone, start treatment between 16-24+0 weeks and continue until at least 34 weeks. **[NICE-2019]**

Consider prophylactic cervical cerclage for women when results of a transvaginal ultrasound scan carried out between 16- 24 weeks of pregnancy show a cervical length of 25 mm or less, and who have had either:
preterm prelabour rupture of membranes (P-PROM) in a previous pregnancy **or**
a history of cervical trauma. **[NICE 2015 and 2019]**

If either a high vaginal or abdominal cerclage is considered for an individual case, referral to a tertiary centre will be arranged.

10. Contraindications to Cerclage Insertion

- Active preterm labour
- Clinical evidence of chorioamnionitis
- Continuing vaginal bleeding
- PPROM
- Evidence of fetal compromise
- Lethal fetal abnormalities.
- Fetal death.

Rescue' cervical cerclage

Do not offer 'rescue' cervical cerclage to women with: signs of infection or active vaginal bleeding or uterine contractions.

Consider 'rescue' cervical cerclage for women between 16- 27 weeks of pregnancy with a dilated cervix and exposed, un ruptured fetal membranes: take into account gestational age (being aware that the benefits are likely to be greater for earlier gestations) and the extent of cervical dilatation.

Discuss with a consultant obstetrician and consultant paediatrician.

Explain to women for whom 'rescue' cervical cerclage is being considered (and their family members or carers as appropriate): about the risks of the procedure that it aims to delay the birth, and so increase the likelihood of the baby surviving and of reducing serious neonatal morbidity.

11. Information should be Given to Women Before Cerclage Insertion (does not include rescue cerclage)

- Cerclage insertion is not associated with an increased risk of PPROM, induction of labour or caesarean section.
- The insertion of a cervical suture is not associated with an increased risk of PTL or second trimester loss.
- There is a small risk of intra operative bladder damage, cervical trauma, membrane rupture and bleeding during insertion of cervical cerclage.

- Shirodkar cerclage usually requires anaesthesia for removal and therefore carries the risk of an additional anaesthetic.
- Cervical cerclage may be associated with a risk of cervical laceration/trauma if there is spontaneous labour with the suture in place.

12. Pre and Peri-Operative Management

- The use of routine WBC and CRP to is not recommended. The decision to perform these tests should be based on the overall clinical picture.
- In the presence of a positive culture from a genital swab, a complete course of sensitive antibiotics before cerclage insertion would be recommended.
- There is no evidence to support the use of routine tocolysis.
  However it is a good practice point to use 100 mg of PR Indomethacin preoperatively
- The choice of cerclage technique (Shirodkar versus McDonald) should be at the discretion of the surgeon.
- The decision for antibiotic prophylaxis at the time of cerclage placement should be at the discretion of the operating team.

Clindamycin 5g, 2% cream, PV nocte for 5-7 nights is recommended.

- The choice of anaesthesia should be at the discretion of the operating team and patient choice.
- Elective cerclage can safely be performed as a day-case procedure with an overnight stay on ward 314 if more 20 weeks ,on ward 209 if less than 20 weeks gestation on RDH site and At Burton site, women are admitted in ward 11 irrespective of gestation for cervical suture
- The choice of suture material should be at the discretion of the surgeon.
  (Usually Mersilene purse string suture RS21 or RS22).or Ethilon (Monofilament).
- A cervical cerclage should be removed before labour, usually between 36+1 and 37+0 weeks of gestation, unless delivery is by elective caesarean section, in which case suture removal could be delayed until this time.
- In women presenting in established preterm labour, the cerclage should be removed to minimise potential trauma to the cervix.
- If the women presents with PPROM between 24 and 34 weeks of gestation and without evidence of infection or active PTL, delayed removal of the cerclage for 48 hours can be considered, as it may result in sufficient time that a course of steroids for fetal lung maturation is completed and/or in utero transfer arranged.

13. Monitoring Compliance and Effectiveness

Monitoring requirement	Review of health records of women who undergone screening for cervical length +/- cervical cerclage
Monitoring method	Retrospective case note review
Report prepared by	Named individual undertaking audit
Monitoring report sent to:	Maternity Development
Frequency of report	As per agreed Audit forward programme

14. References

Saving babies live care bundle version 2-March 2019.

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Documentation Control

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Version Amendment	Version	Date	Author	Reason
	1	August 2013	Miss S Raouf	New
	2	Oct 2017	Miss S Raouf – Consultant Obstetrician	Review
UHDB	1	Dec 2020	Miss S Raouf – Consultant Obstetrician	Review / merge
	2	Sept 2022	Miss S Rajendran – Consultant Obstetrician	Review against new RCOG guideline – no changes
	2.1	March 2023	Cindy Meijer - Digital Midwife	Alignment of change in HHR's and booking risk assessment on EPR
	2.2	Nov 2023	Joanna Harrison-Engwell - Lead Senior Midwife for Guidelines, Audit and QI	Addition to council women re signs and symptoms of preterm birth - in line with SBLV3
Intended Recipients: All staff with responsibility for caring for women in the AN period				
Training and Dissemination: Cascaded through lead midwives/doctors / Published on Intranet NHS mail circulation / Article in BU newsletter				
To be read in conjunction with:				
Consultation with:	FMMC team			
Business Unit sign off:	20/09/2022: Maternity Guidelines Group: Miss S Rajendran – Chair **V2.2:** 24/11/2023 22/09/2022: Maternity Development and Governance – Miss S Raouf **V2.1:** 23/03/2023 Maternity Governance **V2.2:** / /2023 **V2.1:** 20/03/2023 Maternity Development			
Divisional sign off: 27/09/2022 **V2.1** 28/03/2023, Notification Overview sent to TIER 3 Divisional Quality Governance Operations & Performance: **V2.2** / 12 /2023				
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