Pre-Term Birth Prevention Clinic Outcomes
Epsom and St Helier NHS Hospitals

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Aims of the service

Objective: Outcomes of pregnancy in midwife / sonographer lead preterm prevention clinic over a period of 1 year (280patients)

★ **Methods:** At booking of pregnancy all women had a medical history-based screening for risk of preterm birth (PTB). Protocol offered a single cervical (cx) length assessment at 20 weeks or serial assessments between 12-22 weeks based on history. Some were offered vaginal progesterone based on history for risk reduction.

★ Those with 3 or more previous deliveries between 24 and 36 weeks were offered a cervical cerclage based on obstetric history after a routine 12 week scan.

★ The hospital serves a multi-ethnic population in south London and Surrey. Annual births vary between 3900-4400 births.

Criteria for clinic

- This was a single cervical length assessment at 20 weeks or serial assessments between 12 and 22 weeks.
- All data was prospectively collected in a database which included maternal characteristics, previous obstetric history, screening results, treatment offered and the pregnancy outcomes.
- Referral criteria:
- 1. Previous cervical surgery
- 2. Late miscarriage
- 3.Cervical shortening on other examination- less than 25mm
- 4. Previous preterm rupture of membranes and/or previous preterm delivery
- 5. Uterine anomaly/structural defect

Results

280 patients Data from 2022-2023

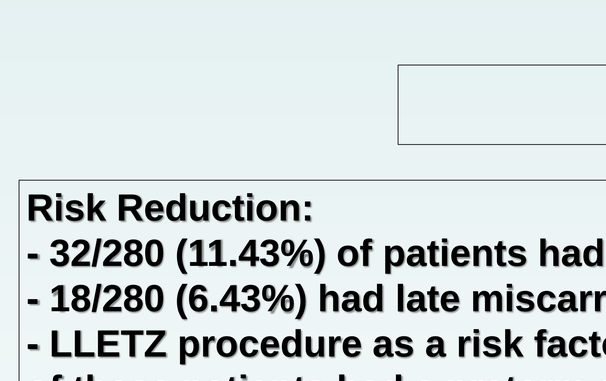
- Most common referral reason: Previous LLETZ procedure : 159/280 (57%)
- Single scan assessments vs multiple scan assessments: 52 patients (19%) vs 228 patients (81%)
- Number of patients offered a cx cerclage based of history: 5 patients (1.79%)
- Number of patients offered a stitch based on evidence of shortening: 2 patients (0.71%)
- Number of patients with PPROM: 7 patients (2.5%)
- Number of patients with PPROM and cx cerclage: 1 patient (0.36%)
- Number with PPROM with no cx cerclage: 7 patients (2.5%)
- Number of patients that gave birth between 23 and 36 weeks: 10%
- Number of patients who gave birth prior to 34 weeks: 4%
- Cases that saw cervical shortening despite use of progesterone: 6 patients (2.14%)

Outcomes and Conclusions

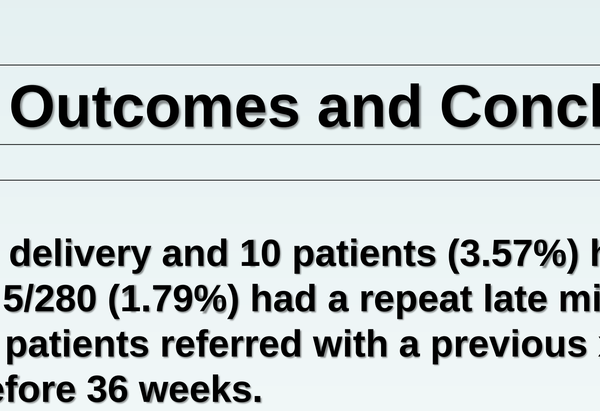
Risk Reduction:
- 32/280 (11.43%) of patients had a preterm delivery and 10 patients (3.57%) had a subsequent preterm delivery.
- 18/280 (6.43%) had late miscarriages and 5/280 (1.79%) had a repeat late miscarriage.
- LLETZ procedure as a risk factor: 98% of patients referred with a previous x1 or more LLETZ had a subsequent term delivery. Only 2% of these patients had a preterm delivery before 36 weeks.

Conclusion: The clinic can improve outcomes in pregnancy by focussing on high-risk cases. A predefined protocol allows for the clinic to run with indirect supervision.

Cervical Length – Attaining optimal images



Normal Cervix: above 25mm. measured using a straight line with the callipers placed at the triangular area of echodensity at the external os to the V shaped notch at the internal os.



Short cervix: Less than 25mm. With or without evidence of funnelling.

Changes made since review of service outcomes

- **Changes to referrals made to the preterm birth clinic protocol include: Patients are only referred if they had a delivery or preterm rupture of membranes prior to 34 weeks. Above 34 weeks does not require cx length screening.**
- **Requested information from colposcopy clinics performed within our hospitals to include the amount of cervical tissue removed at each procedure. This will help to research the impact of cervical surgery on preterm birth further.**

References: fetalmedicine.org. (n.d.). *Cervical assessment | FMF Certification | Welcome to the Fetal Medicine Foundation*. [online] Available at: https://fetalmedicine.org/fmf-certification-2/cervical-assessment-1.