

Audit of the Preterm Birth Prevention Service in Worthing Hospital

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Introduction

Preterm birth (PTB), defined as delivery at <37+0 weeks gestation, is a common complication of pregnancy, comprising around 8% of births in England and Wales¹. It is the most important single determinant of adverse infant outcome with regards to survival and quality of life, with high rates of neonatal mortality and morbidity¹. Our PTB clinic aims to identify those at risk of cervical insufficiency in time to intervene. 34 weeks gestation is noted to be a key milestone in terms of better prognosis for babies.

Objective

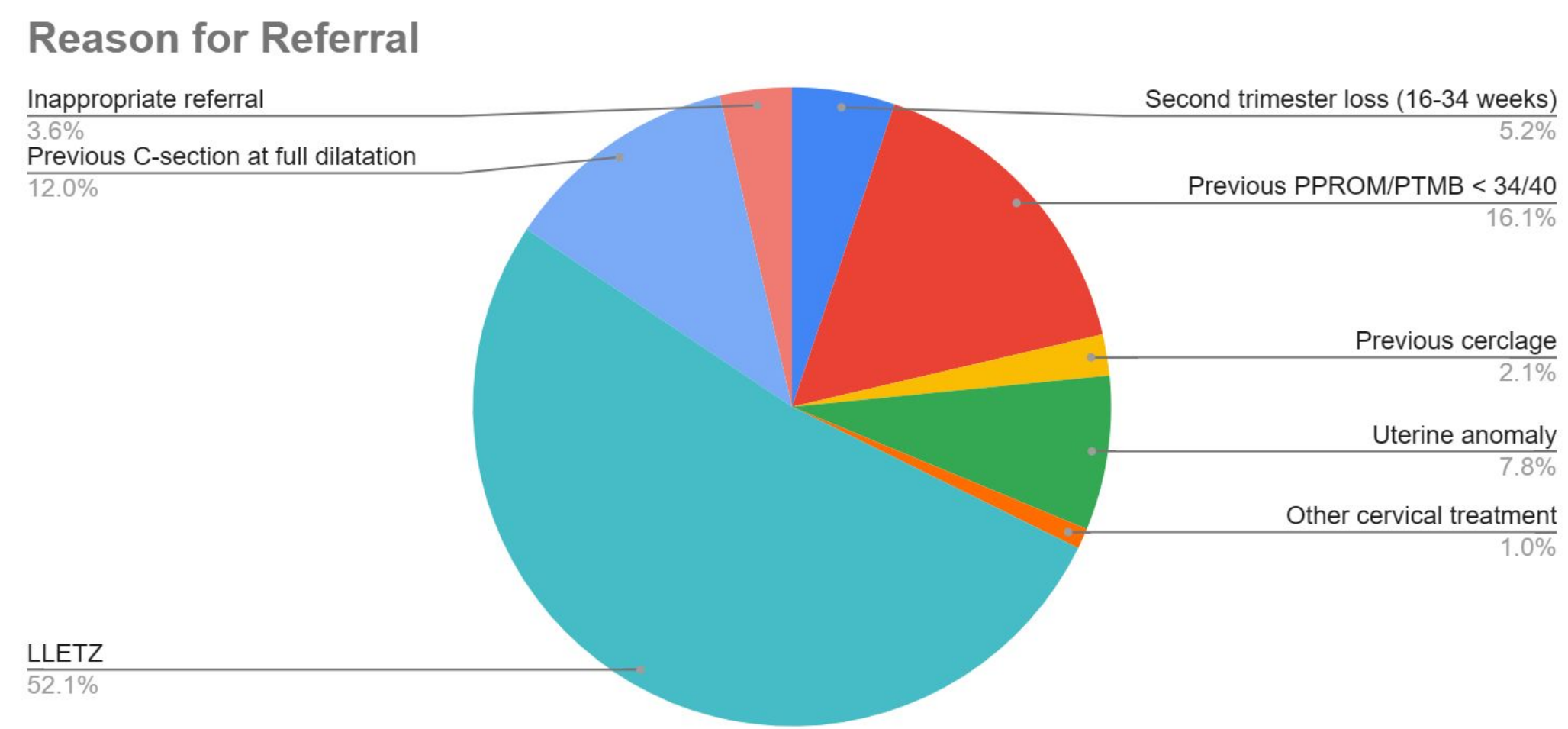
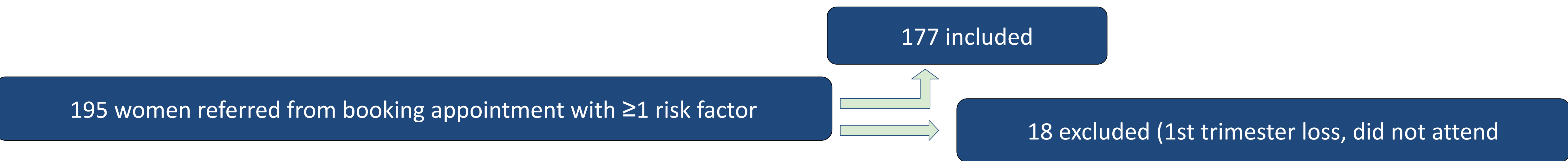
The objective of our study is to evaluate the efficacy of our local PTB prevention service.

Standards used:

- ❖ Saving Babies’ Lives Bundle Version 2 - Element 5
- ❖ Green-top Guideline No. 75 Cervical Cerclage

Design

A retrospective audit was undertaken from 1st September 2021 to 31st August 2022. Patients were referred at booking with any risk factors as per Saving Babies’ Lives Bundle Version 2. The outcome measures were the overall rate of PTB, and the effectiveness of cervical cerclage and progesterone in preventing PTB.



References

1. Saving Babies’ Lives Bundle Version 2 - Element 5
2. RCOG Green-top Guideline No. 75 Cervical Cerclage, June 2022

Reason for referral: 88% had 1 risk factor; 12% had >1 risk factor for referral. Inappropriate referrals were primarily cervical biopsy only. Mean gestation at first appointment was 15+3 weeks (10+3 - 23+1 weeks with a positive skew).

LLETZ: Depth ≥ 1 cm is a risk factor for PTB and requires referral for assessment². 100 were referred due to LLETZ. 40% of these had depth <1cm. 30% of these did require intervention for shortening cervix; all then resulted in term deliveries.

Abbreviations: PPROM - premature prelabour rupture of membranes

Results

Interventions: 33% (59/177) required intervention:

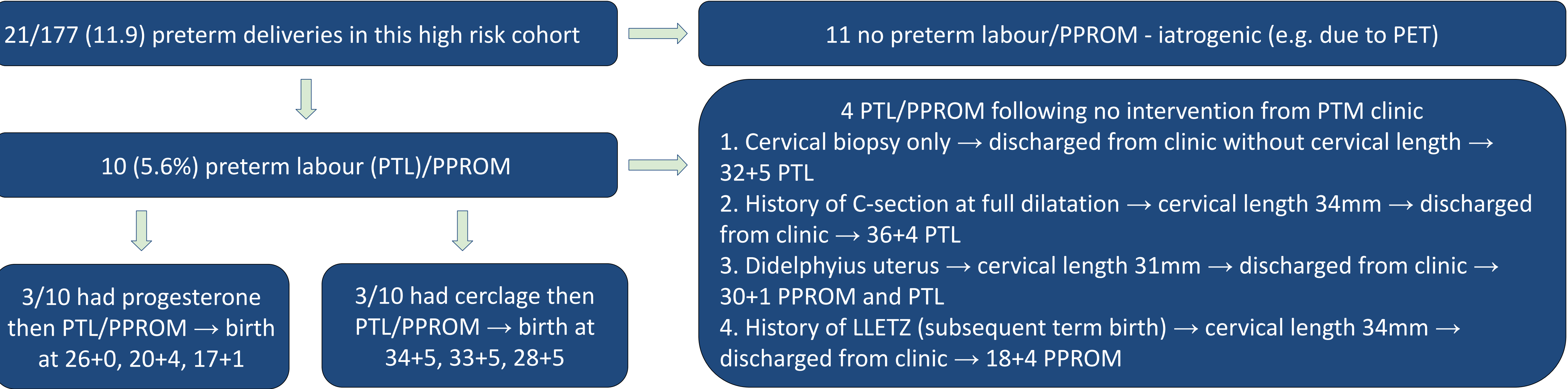
- ❖ 28 - cervical cerclage (all McDonald sutures)
- ❖ 31 - progesterone-only till 32 weeks with cervical surveillance 16-24 weeks

Cerclage:

- ❖ Emergency - 2 placed in the case of premature cervical dilatation, no acute complication, both delivered >34/40
- ❖ History-indicated - 1 true history-indicated (≥ 3 previous PTB); 4 placed with history of previous cerclage
- ❖ Ultrasound-indicated (cervical length shortening) - 21

Preterm deliveries:

On average, we saw a clear later gestation post cerclage than progesterone although this was not significant.



Conclusions

- ❖ Majority of women seen <16/40, allowing early intervention
- ❖ We did see intervention required with LLETZ depth <1cm
- ❖ There has been a decrease in PTL rates in our unit, from 8% (2020-21) to 5.6% (2021-22), in line with the National Maternity Safety Ambition to reduce PTB rate from 8% to 6% by 2025
- ❖ The cost of running this service is minimal compared to the high cost of neonatal care for extreme preterm babies

By implementing this one-stop service, we have potentially reduced costs and helped prevent adverse infant outcomes related to prematurity.

Distribution of preterm birth clinic intervention

