

# An Audit of Cervical Ripening Practices in Nulliparous Women In A Regional Hospital

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## Introduction

Induction of labour (IOL) is a common intervention performed for maternal and fetal indications. In Australia, post-term pregnancy is the most common indication for IOL. In 2022, 43% of women given birth for the first time in Australia had an induction of labour<sup>1</sup>. In QLD specifically it was 37 %<sup>1</sup>.

## Aim

The aim of the audit was to assess cervical ripening practices in a regional hospital, in term nulliparous women and provide data which might lead to further research.

## Method

Retrospective data analysis (July-September 2023):

- 152 patients total (72 nulliparous women & 80 Multiparous women)
- 70 nulliparous women assessed for: reason for IOL, cervical ripening method & method of delivery

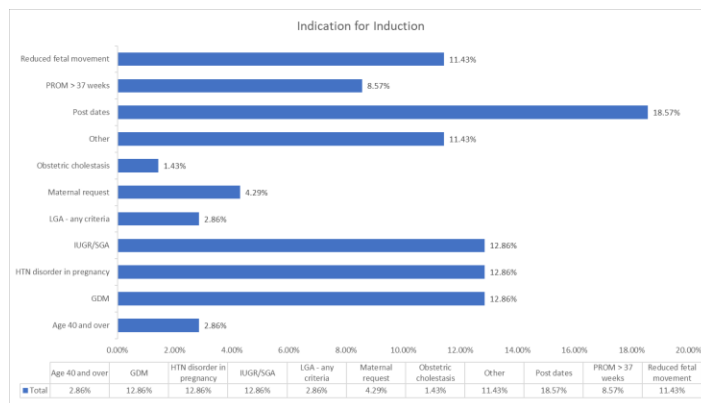
Exclusion criteria: Multiparous women + fetal death in utero & termination of pregnancy

## Limitations

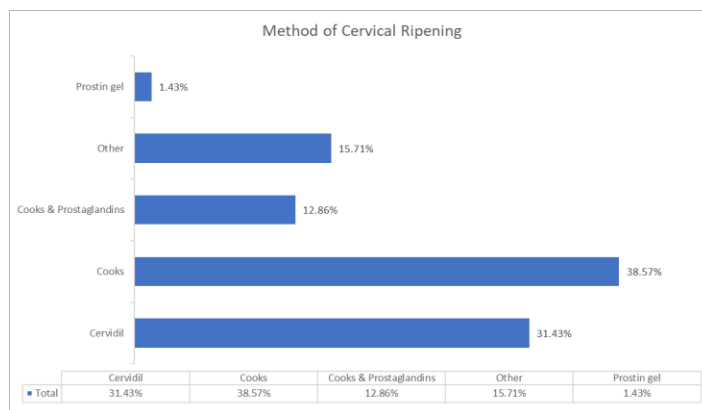
- Small sample size, short audit period (July to September)
- Confounding variables: BMI, abnormal CTG, FTP etc.
- Statistical limitations as insufficient power hence difficult to generate clinically relevant differences between methods of cervical ripening and birth outcomes.

## Results

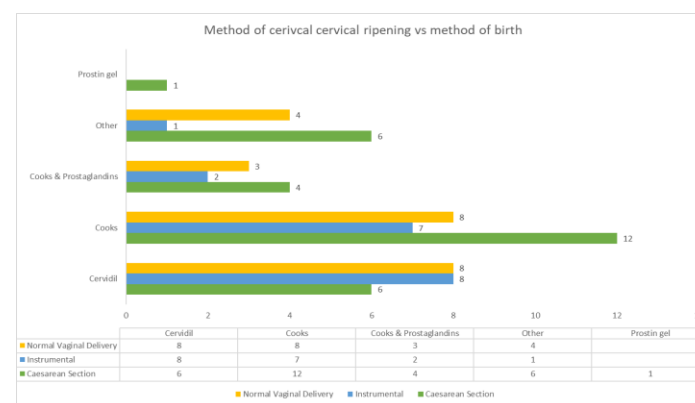
**Figure 1.** Indication for Induction of Labour



**Figure 2:** Method of cervical Ripening



**Figure 3:** Cervical ripening vs method of birth



## Conclusion

Post dates was the most common indication for IOL. This is consistent with Australian data and studies<sup>1-2</sup> Cook's catheter was the commonest method of cervical ripening in nulliparous term women in this audit.

Seventy-seven percent of IUGR/SGA IOL received Cooks catheter. Forty-four percent of women with Cooks catheter had caesarean section whilst twenty seven percent of women with Cervidil had a caesarean section.

The result of the audit is not consistent with systematic review and meta-analysis which have proven little to no difference in birth outcomes with different cervical ripening methods<sup>3-4</sup>.

## References

- 1) AIHW (2024) Australia's mothers and babies, AIHW, Australian Government, accessed 06 Nov 2024.
- 2) De Vaan MDT, ten Eikelder MLG, Jozwiak M, Palmer KR, Davies-Tuck M, Bloemenkamp KWM, Mol BWJ, Bouvain M. Mechanical methods for induction of labour. Cochrane Database of Systematic Reviews 2023, Issue 3. Art. No.: CD001233. DOI: 10.1002/14651858.CD001233.pub4.
- 3) Jones, Madeleine N et al. Balloon catheters versus vaginal prostaglandins for labour induction (CPI Collaborative): an individual participant data meta-analysis of randomised controlled trials. The Lancet (2022), Volume 400, Issue 10364, 1681 – 1692
- 4) Van Baaren GJ, Jozwiak M, Opmeer BC, Oude Rengerink K, Berthens M, Dijksterhuis MGK, et al. Cost effectiveness of induction of labour at term with a Foley catheter compared to vaginal prostaglandin E2 gel (PROBAA T trial). BJOG. 2013;120(8):987–95. doi:10.1111/1471-0528.12221.