

Primiparous Patients' Experience of Maternal Request Induction of Labour

Gatty S

Obstetrics and Gynaecology Department, Redcliffe Base Hospital, Metro North Health Service

INTRODUCTION

Induction of labour (IOL) is utilised to decrease the risk of poor obstetric and perinatal outcomes associated with expectant management. IOL aims to reduce perinatal deaths, improve infant observation scores, reduce caesarean section (CS) rates and reduce maternal intrapartum and postpartum complications. The Australian IOL rate has increased to 34% of the birthing population however, there has been no significant reduction in stillbirths or neonatal deaths. Also, for consideration is the risk to the birthing patient as induction has a risk of pain, uterine overstimulation, failure, uterine rupture and infection. Given the small absolute risk difference, consensus is lacking on when and to whom to provide maternal request IOL.

Maternal request IOL is an IOL without a medical or obstetric indication. Redcliffe Base Hospital (RBH) is a 250 bed outer metropolitan hospital within the Metro North Health district. The December 2022 RBH IOL Guideline, considered new research including the ARRIVE trial (3) approved maternal request IOL >40 weeks. The guideline did not give recommendation regarding gravidity despite available evidence indicating the primiparous patients have higher complication rates (4). A retrospective cohort audit was conducted at RBH to investigate the number of patients who underwent a maternal request IOL, the process in which they were booked and patient and baby outcomes given the implementation of the 2022 guidelines.

AIM

This audit aimed to quantitatively and qualitatively establish the outcomes of the birthing population who undertook a maternal request IOL.

METHODS

A retrospective cohort audit of birthing patients who underwent a maternal request IOL at RBH between January 2023 and December 2023. Maternal request IOL is defined as an IOL requested by a healthy birthing patient, with a low-risk pregnancy without a medical indication for induction. Gestation recorded at time of IOL, was the gestation booked for priming. All methods of induction and/or augmentation were included. Excluded from the audit were patients whose care was transferred to other health services or whose indication for IOL at time of induction was for a medical reason. For this cohort audit, women were not excluded if they recorded social risk factors such as domestic violence, mental health disorders prior, during or after pregnancy, or substance abuse such as alcohol, drugs or smoking. Patients lost to follow-up were included. The patient pool was sourced from RBH data collected for the "Queensland Perinatal Data Collection, Perinatal Online." Patient data was collected from handwritten charts and electronic records documented in ORMIS and THE VIEWER. The data was collated, analysed and stored (password protected) on Microsoft Excel.

DEMOGRAPHICS

- A total of 1570 birthing patients, birthed at RBH during the 2023 calendar year and 599 of these patients underwent an IOL.
- A total of 45 patients were captured searching the RBH Perinatal Online Data using the search terms of "IOL," "Maternal Request," "Social," and "2023."
- Three patients were excluded as their indication for IOL was medical.
- No patients were lost to follow-up.
- Follow-up period included period of time between admission of patient undergoing maternal IOL to discharge home.
- The average age was 28 years with a range of 17 to 40 years.

RESULTS

- 42 (7%) of the 599 IOL patients who delivered at RBH during 2023 undertook a maternal request IOL.
- Of those birthing patients who underwent maternal request IOL, four (9.5%) required instrumental births, five (11.9%) required a CS and two (4.8%) babies needed nursery admission.
- No babies required neonatal intensive care admission or interhospital transfer.
- 17 (38%) of these patients were primiparous.
- Primiparous birthing patients, two (4.8%) required instrumental births, four (9.5%) required a CS and one (2.4%) baby needed nursery admission.
- Multiparous birthing patients, two (4.8%) required instrumental births, one (2.4%) required a CS and one (2.4%) baby needed nursery admission.

DISCUSSION

The RBH IOL Guideline (1) aims to remove the ambiguous national guidance on IOL given an ever-evolving evidence base. As per the audit, 599 birthing patients underwent an IOL at RBH, this is a significant number of birthing patients who are exposed to the risks of IOL. 2023 Australian data indicates that 11.6% of all births were instrumented vaginal deliveries and 15% of spontaneous labours required a CS compared to 23% of induced labours (4). The RBH birthing patients who underwent a maternal request IOL overall, had lower rates of instrumented vaginal deliveries and CS; 9.5% and 11.9% respectively.

Primiparous birthing patients who had a maternal request IOL were worse off compared to multiparous patients. The RBH primiparous patients had worse outcomes compared to the overall 2023 Australian birthing population (4). These results are in keeping with IOL outcomes from high resource countries (3). The six primiparous patients who had complications were followed up in a debrief appointments. All patients had a positive experience overall. Despite requiring intervention in an emergency clinical situation, the patients did not have concerns regarding their decision to have a maternal request IOL.

Concrete conclusions from this audit cannot be made as there are significant limitations to it, especially relatively low power and short follow-up time frame of babies post-delivery. Firstly, the total number of birthing patients included are relatively small. A small number of patients is related to the catchment size of the RBH hospital. The small patient number precludes being able to have statistically significant outcomes thus, reduces ability of these outcomes being applicable to other centres. Secondly, follow-up of babies did not extend to medium or long term. Poor baby outcomes that occurred from time of birth to discharge home were only recorded.

REFERENCES

1. Queensland Clinical Guidelines. Induction of labour guideline. Guideline No. MN19.21-V9- R24. Queensland Health.2020. [cited 2024 January 15]. Available from: <http://www.health.qld.gov.au/qcg>
2. Work Unit Guidelines and Procedures. Induction of Labour. Procedure No. 004315. Metro North Queensland Health. 2022. [cited 2024 January 15]. Available from: Metro North Mental Health Redcliffe/Caboolture Procedures and Work Unit Guidelines
3. Carlson n, Ellis J, Page K, Dunn A, Phillipi J. Review of evidence based methods for successful labour induction. 2021. J Midwifery Womens Health. [cited January 20 2024]. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8363560/>
4. Australia's mothers and babies. Topic: Mothers & babies media release. Australian institute of Health and Welfare. Sep 2024. [cited 2024 September 24]. Available from: Australia's mothers and babies, Method of birth - Australian Institute of Health and Welfare (aihw.gov.au)