Delay in Induction of Labour at Two Hospitals in Southeast Scotland: Outcomes

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Abstract: Introduction: Induction of labor (IOL) usually involves the patient moving between antenatal, labor, and postnatal wards. Delay in IOL has been defined as delay in the time it takes a woman to wait for induction after her cervix is assessed to be favorable. Opinions vary on the acceptable time the patient is allowed to wait for once the cervix is adjudged ripe for induction. What has been considered a benchmark is a delay of up to 12 hours. There is evidence that delay in IOL is associated with adverse outcomes. Aim: To determine the number of women experiencing delay in induction of labor and their outcomes. Method: This audit was retrospective and observational. It included women who had induction of labor in the month of October 2023 in two hospitals. Clinical data was collected from electronic medical records into an Excel sheet for analysis. Women had cervical ripening as inpatient or outpatient. The primary objective was to determine the number of women experiencing delay in induction of labor, while the secondary objective was to outcome these women. Result: 136 women had IOL. The least percentage of data retrieved for any parameter was 80%. The mean gestational age at IOL was 278.26 days. The mean waiting time was 905.34mins. Seventy-five women had their IOL at the Royal Infirmary of Edinburgh (RIE), fifty-seven at St. John's Hospital (SJH), and three women were transferred from RIE to SJH. The preferred method of cervical ripening was balloon closely followed by prostaglandin. Twenty-seven women did not require cervical ripening and had their process started with amniotomy. Prostaglandin was the method of choice of cervical ripening at RIE, while balloon was preferred in SJH. Of the thirty-five women found to be suitable for outpatient cervical ripening, thirteen had outpatient ripening. There was a significant increase in the number of women undergoing outpatient cervical ripening at RIE from 10.5% in April 2022 to 42.9%. The preferred method for outpatient cervical ripening at the RIE was balloon, while it was prostaglandin for SJH. These were contradictory to the preferred method of inpatient cervical ripening at both centers. The average waiting time for IOL at RIE, 1166.92mins, is more than double that of SJH, 442.93mins, and far exceed 12hours, which is the proposed benchmark. The waiting time tends to be shorter with prostaglandin. Out of the women that had outpatient cervical ripening 63.6% had to wait for more than 12hrs before being induced while it was 36.1% for women that had inpatient cervical ripening. Overall, 38.5% women waited for more than 12 hours before having their induction. A lesser proportion of the women who waited for more than 12 hours had caesarean section, assisted vaginal delivery, and postpartum hemorrhage, whereas a greater proportion had spontaneous vaginal delivery and intrapartum or postpartum infection. Conclusion: A significant number of the women included in the study experienced delay in their induction process, and this was associated with an increased occurrence of intrapartum or postpartum infection. Outpatient cervical ripening contributed to delay.

Keywords : delay in induction of labor, inpatient, outpatient, intrapartum, postpartum, infection **Conference Title :** ICOG 2024 : International Conference on Obstetrics and Gynaecology

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