

Effectiveness and safety of outpatient versus inpatient balloon cervical ripening: Findings from a pilot study

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Objective

Cervical ripening prior to induction of labour is commonly performed with a balloon catheter¹. We hypothesise that balloon induction performed in the outpatient setting will be equally effective and safe², as compared to inpatient.

Methods

An outpatient balloon induction protocol was introduced at the pilot site. All eligible women were planned for discharge following balloon insertion.

Participants were discharged home for up to 18 hours and asked to represent in case of balloon expulsion, vaginal bleeding, membrane rupture or regular uterine activity.

Inclusion Criteria

- Induction of labour >37 weeks
- Unfavourable cervix
- Singleton pregnancy
- Cephalic presentation
- Membranes intact
- No major foetal abnormalities
- No co-morbidities requiring hospitalisation
- Appropriate for outpatient management

Exclusion Criteria

- Preterm (<37 weeks)
- Prostaglandin agent used
- High mobile foetal head
- Intrauterine foetal death
- Major foetal abnormalities
- Inappropriate for outpatient management (e.g. >1 hour away from hospital, no transport overnight)

Results

Over 20 weeks, 315 women booked for cervical ripening were considered for home induction eligibility (Figure 1)

- 28 (8.9%) were excluded as ineligible as per protocol
- 59 (18.7%) had a ripe cervix
- 111 (35.2%) were excluded after balloon insertion for pain, unstable maternal observations, high mobile foetal head, or uterine activity
- 32 (14.0%) of those who needed ripening had a Prostaglandin agent

Of those eligible at the time of balloon insertion, 82 (41.8%) women were discharged home. Most women did not represent early (57.3%)

Mode of Delivery: 59 (73.2%) vaginally, including 20 (24.4%) instrumental births and 21 (26.8%) Caesarean deliveries

Adherence to study protocol improved over time, with 81% (17/21) of protocol deviations occurring within the first 9 weeks (Figure 2)

Conclusion

Home balloon inductions initially appear to be safe and effective. Study protocol adherence improved with time.

References

1. Australian Institute of Health and Welfare 2018. Australia's mothers and babies 2016 – in brief. Perinatal statistics series no. 34. Cat. No. PER97. Canberra:AIHW.
2. Diederens, M. et al., Safety of the balloon catheter for cervical ripening in outpatient care: Complications during the period from insertion to expulsion of balloon catheter in the process of labour induction: A systematic review. BJOG, 2018. 125: p. 1086-95.

Figure 1. Flow diagram of patients included in pilot

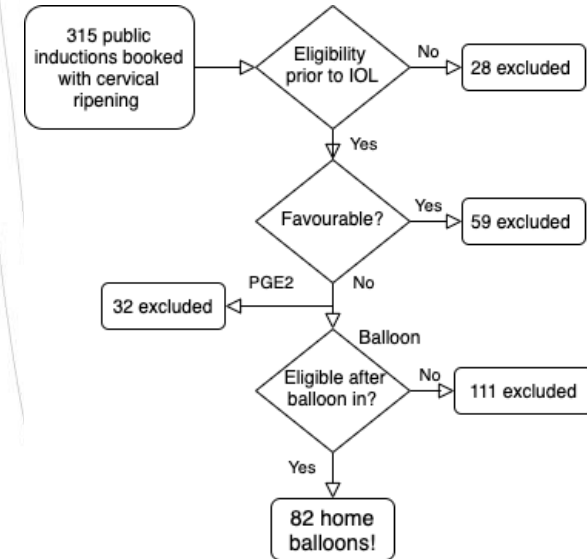


Figure 2. Protocol violations by month

