Outpatient versus inpatient induction of labour for improving birth outcomes

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RHL Summary

Findings of the review: This review assessed four trials (1439 women) that had compared different types of induction of labour in inpatient versus outpatient setting. All trials had been carried out in Australia, Canada and the USA, and were of unclear quality. Two studies (1028 women) assessed prostaglandin E2 (PGE2) for induction of labour and found no difference between the groups in: the number of women achieving spontaneous birth and requiring a further induction agent (oxytocin); the total length of hospital stay; neonatal morbidity and mortality; caesarean section rate; numbers of women receiving epidural analgesia; Apgar score less than seven at five minutes; and admission to neonatal intensive care unit. The cost-savings for outpatient group was reported to be “US$ 585”, although it is not clear what costs had been included. One trial (300 women) assessed controlled release PGE2 and found difference between the groups in failure of induction, vaginal delivery within 24 hours, use of additional induction agents, the total length of hospital stay, mode of delivery and infants outcomes. Women in outpatient group rated their satisfaction with care higher, but overall satisfaction with labour and delivery was similar in both groups. One trial (111 women) assessed Foley’s catheter induction of labour and found no difference between outpatient and inpatient groups in total induction time, number of women delivering by caesarean section, number of women receiving epidural analgesia, number of babies admitted to special care.

Implementation: The current evidence on induction of labour in outpatient setting is limited. Well-designed trials are needed to compare induction of labour in outpatient versus inpatient setting.

Cochrane review


Abstract

More than 20% of women undergo induction of labour in some countries. The different methods used to induce labour have been the focus of previous reviews, but the setting in which induction takes place (hospital versus outpatient settings) may have implications for maternal satisfaction and costs. It is not known whether some methods of induction that are effective and safe in hospital are suitable in outpatient settings.
To assess the effects on outcomes for mothers and babies of induction of labour for women managed as outpatients versus inpatients.

We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (30 June 2013).

Published and unpublished randomised and quasi-randomised trials in which inpatient and outpatient methods of cervical ripening or induction of labour have been compared.

Two review authors independently assessed trial reports for inclusion. Two review authors carried out data extraction and assessment of risk of bias independently.

We included four trials, with a combined total of 1439 women in the review; each trial examined a different method of induction and we were unable to pool the results from trials.

- Vaginal PGE2 (two studies including 1028 women). There were no differences between women managed as outpatients versus inpatients for most review outcomes. There was no evidence of a difference between the likelihood of women requiring instrumental delivery in either setting (risk ratio (RR) 1.29; 95% confidence interval (CI) 0.79 to 2.13). The overall length of hospital stay was similar in the two groups.
- Controlled release PGE2 10 mg (one study including 300 women). There was no evidence of differences between groups for most review outcomes, including success of induction. During the induction period itself, women in the outpatient group were more likely to report high levels of satisfaction with their care (satisfaction rated seven or more on a nine-point scale, RR 1.42; 95% CI 1.11 to 1.81), but satisfaction scores measured postnatally were similar in the two groups.
- Foley catheter (one study including 111 women). There was no evidence of differences between groups for caesarean section rates, total induction time and the numbers of babies admitted to neonatal intensive care.

The data available to evaluate the efficacy or potential hazards of outpatient induction are limited. It is, therefore, not yet possible to determine whether induction of labour is effective and safe in outpatient settings.

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