

# Strategies to Support Women and Clinicians to Engage in Shared Decision Making about Timing of Hospital Admission in Labour

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## Background and Aims

Up to two thirds of women are admitted to hospital in early labor, reducing risk of unplanned out-of-hospital birth and expanding pain management options, but increasing risk of obstetric intervention, adverse maternal and infant outcomes, and health service costs compared to admission during active labor. There is limited evidence about the extent to which current admission decision-making incorporates patient preferences, the impact of interventions to support shared decision making about timing of admission (particularly any simultaneously supporting both women and clinicians), and very little evidence on the potential of decision support tools in pragmatic trials. We evaluated the uptake of a suite of patient- and clinician-directed interventions in a tertiary hospital and estimated potential effects on rates of early labor admission and clinical outcomes.

## Methods

The suite of interventions was developed in collaboration with local stakeholders and comprised: (a) a patient decision aid on where to spend early labor, provided antenatally to all pregnant women planning vaginal birth and available online, designed using local data and refined through user testing with consumers and their partners (n=7); (b) two mandated clinical decision support tools to guide labour diagnosis and preference elicitation when women telephoned/presented at hospital, (c) implementation training for relevant staff, and (d) promotional materials to prompt use in the hospital setting and with community-based physicians. We used an interrupted time-series design with a random sample of 335 eligible women before (n = 177) and after (n = 158) implementation to assess intervention uptake and estimate potential impact on rates of admission in early labour, obstetric intervention, maternal and infant clinical outcomes and use of hospital resources. Data was extracted from medical records. Postnatal interviews were conducted with 12 women to explore acceptability of the hospital admission process and tool use.

## Results

The patient decision aid was provided to 48.1% of eligible women. Clinical decision support tools were used for 56.7% of women with telephone presentations and 7.1% of hospital presentations. We observed no significant change in rates of admission in early labour, obstetric intervention, or clinical outcomes after implementation in intention-to-treat analyses, and no association between intervention use and outcomes in treatment received analyses, but were insufficiently powered to detect changes of their estimated magnitude. After implementation, women made fewer telephone calls to hospital in late pregnancy (OR=0.75, 95%CI 0.6-0.93, p<0.05). Women commented favorably on the patient decision aid for enhancing sense of control in managing early labor and consistency with clinician-sourced guidance.

## Conclusion

Uptake was suboptimal, despite co-creation, user-centered design, locally relevant information and integration into standard care pathways. Reduced telephone calls to hospital may indicate an effect of the patient decision aid on care-seeking behavior attributable to women's increased sense of control. Future pragmatic trials need to more rigorously evaluate impact on women's perceptions of being informed, in control, and satisfied with decisional outcomes, and pay further attention to implementation challenges. Research exploring factors contributing to poor uptake and subsequent evaluation on clinical and shared decision-making experiences in adequately powered pragmatic trials is planned.