

Does delay during induction of labour cause harm?

Introduction

Published studies on induction of labour (IOL) at term suggest that IOL does not increase caesarean section rates or neonatal morbidity. However, outside trial conditions, a recent national survey demonstrated that delays during the process of induction of labour are common in current UK practice. There are no published data on harms associated with delays between completion of cervical ripening and transfer to labour ward.

Methods

We conducted a retrospective observational study as part of quality improvement work in a large maternity hospital in England. Anonymised data was obtained from the electronic patient records for 824 women who underwent induction of labour during January, August, and September 2020 and February 2021.

Results

369 women (44.7%) were transferred due to onset of labour or other emergencies, the majority in first 6 hours after cervical ripening, 455 (55.3%) were transferred for oxytocin.

There was significant delay from completion of cervical ripening until the actual time of transfer (mean 18:06 hours, median of 05:50 hours).

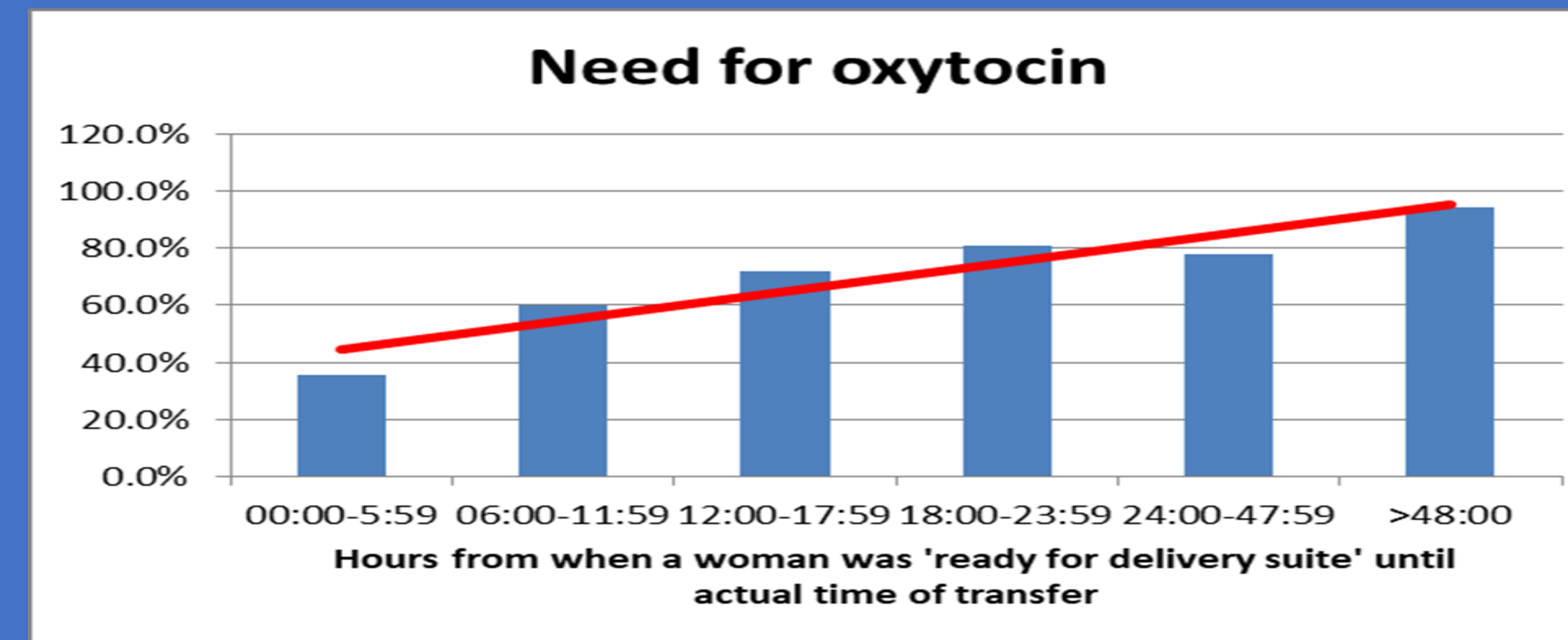
Excluding women who laboured or had another emergency while awaiting transfer, the delay was much longer (mean 26:37 hours, median 15:40 hours).

Strengths and Limitations

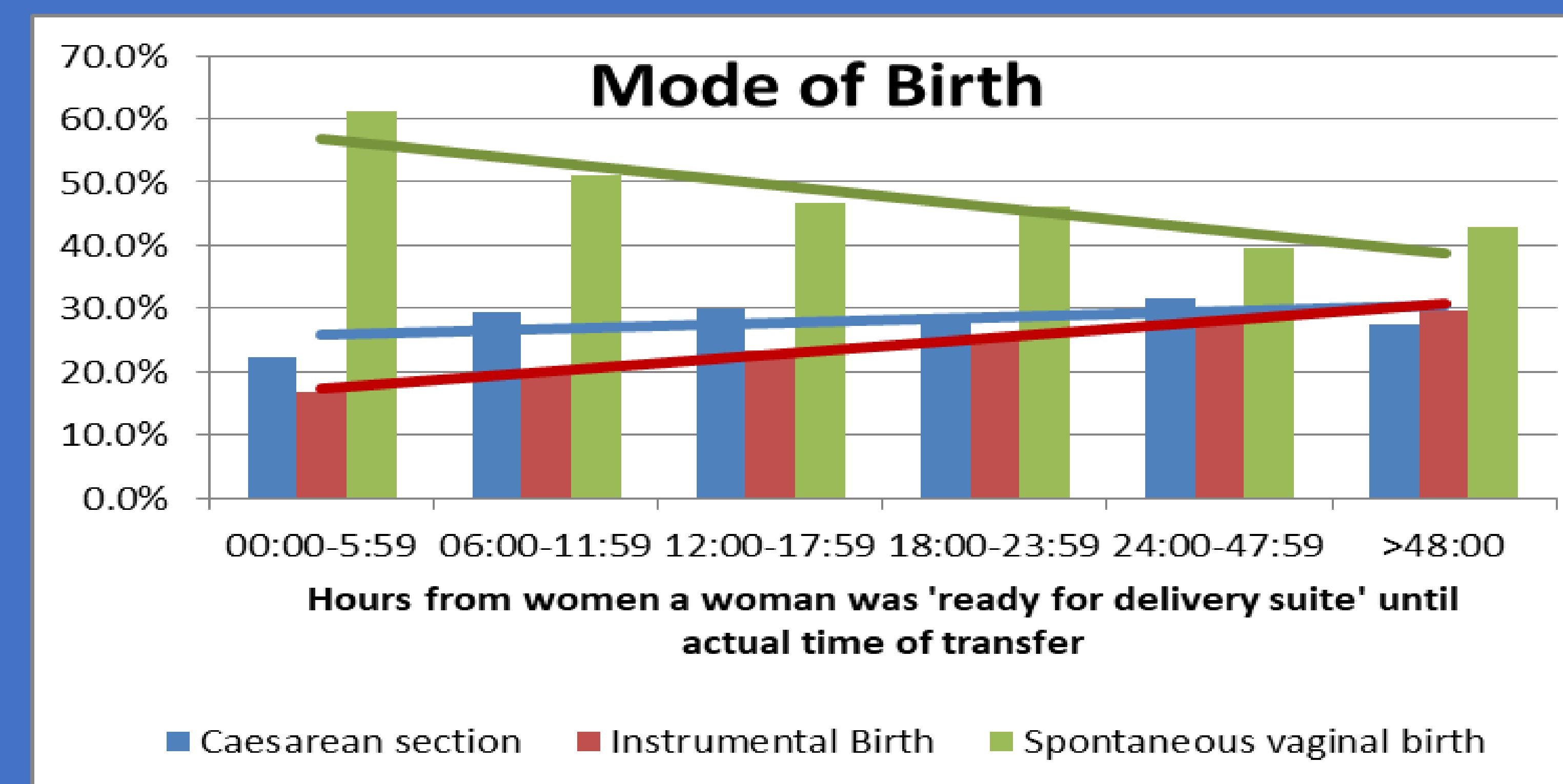
This is the first study to evaluate the consequences of delays during the process of induction which are common throughout UK.

The numbers were small, however, and data was obtained only from a single site and was retrospective. Data from women's experience was not collected in a form that permitted us to analyse it by length of delay.

Increasing delay in transfer after cervical priming increased the need for oxytocin ($p < 0.0000001$).



Increasing delays from completion of cervical ripening reduced the likelihood of spontaneous vaginal birth ($p = 0.0002$).



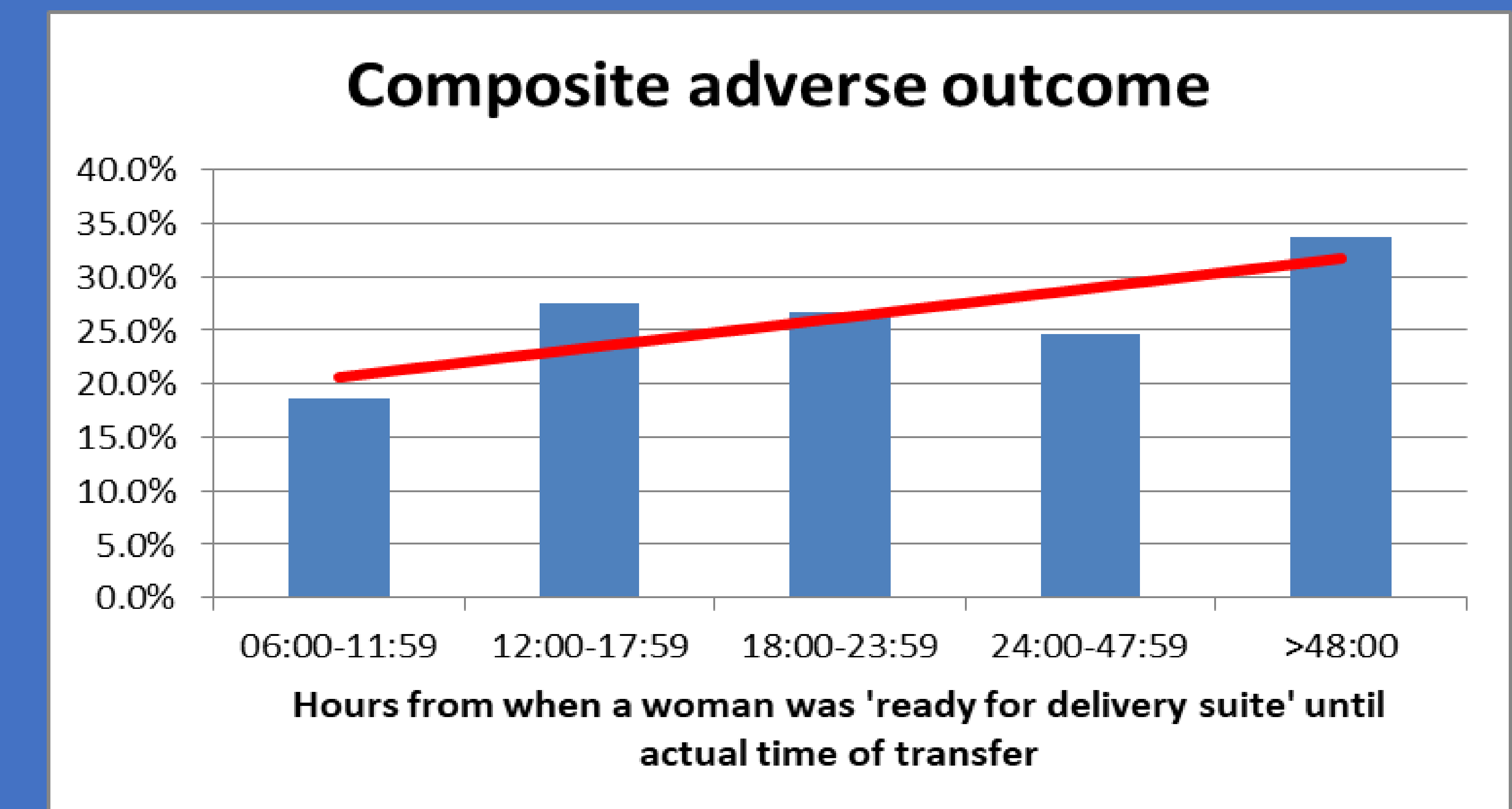
Conclusion

In our hospital, increasing delay in transfer to delivery suite after completion of cervical priming is associated with increasing need for oxytocin, reduced likelihood of spontaneous vaginal birth and increased risk of harm to mother and baby.

Maternal and neonatal adverse events likely to be associated with delays in IOL were evaluated as a composite measure of harm. Individual measures included the following:

- Maternal events: PPH, infection, need for enhanced maternal care
- Neonatal events: unexpected admission to neonatal, need for antibiotics

There was an increased trend in the composite measure of harm with longer delays between completion of cervical priming and transfer to delivery suite for all women ($p = 0.0155$).



Delay in transfer of more than six hours increased the risks of both harm ($p = 0.0038$) and caesarean section ($p = 0.0128$).

Recommendations

Further research is indicated into the risks of harm due to delays and effectiveness of interventions designed to reduce this. There is a need for national consensus on IOL metrics including definitions of delay and harm to measure the effectiveness of Quality Improvement

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