

The impact of mobilisation with epidural analgesia in labour on mode of delivery



Stuart Davis, Louise Symons, Zeeshan Arshad, Naomi Hyndman, Julia Critchley

Introduction

- The Royal Infirmary of Edinburgh (RIE) is a large tertiary obstetric centre
 - Supports ~7,000 births annually
- Previous quality improvement work focused on:
 - Increasing mobilisation after epidural insertion during labour
 - Using staff surveys and mobility checklists
 - Aiming to improve staff confidence and support safe mobilisation
- Factors influencing mobilisation with an epidural include:
 - Epidural infusion regimens
 - Local anaesthetic concentration
 - Attitudes of the labouring woman & midwife
- Epidural analgesia is associated with:
 - Increased risk of instrumental delivery
- Uncertainty remains about:
 - Whether mobilisation after epidural reduces the risk of instrumental delivery
- Some evidence suggests:
 - Increased mobility may be linked to higher rates of unassisted vaginal birth
- Study aim:
 - To determine whether mobilisation with epidural analgesia in labour is associated with mode of delivery at RIE

Methods

- Study design:
 - Retrospective review
- Population:
 - Low-risk women who received epidural analgesia in labour
 - Timeframe: March 2024 – August 2025
- Definition of low risk:
 - Spontaneous labour
 - Age <40 years
 - BMI <40 kg/m²
 - Singleton pregnancy
 - Livebirth
 - No previous caesarean section

- Data collection:
 - Patient records reviewed
- Key variables assessed:
 - Post-epidural mobility status
 - Mode of delivery
- Definition of mobility:
 - Women classified as mobile if they stood off the bed at any point after epidural insertion
- Data points collated and analysed

Results

- 844 low-risk women received epidurals
- 301 (36%) mobilised after insertion
- Delivery outcomes (mobile vs non-mobile):
 - Spontaneous + ventouse: 36% in both groups
 - Forceps + caesarean: 64% in both groups
- No difference between groups in mode of delivery

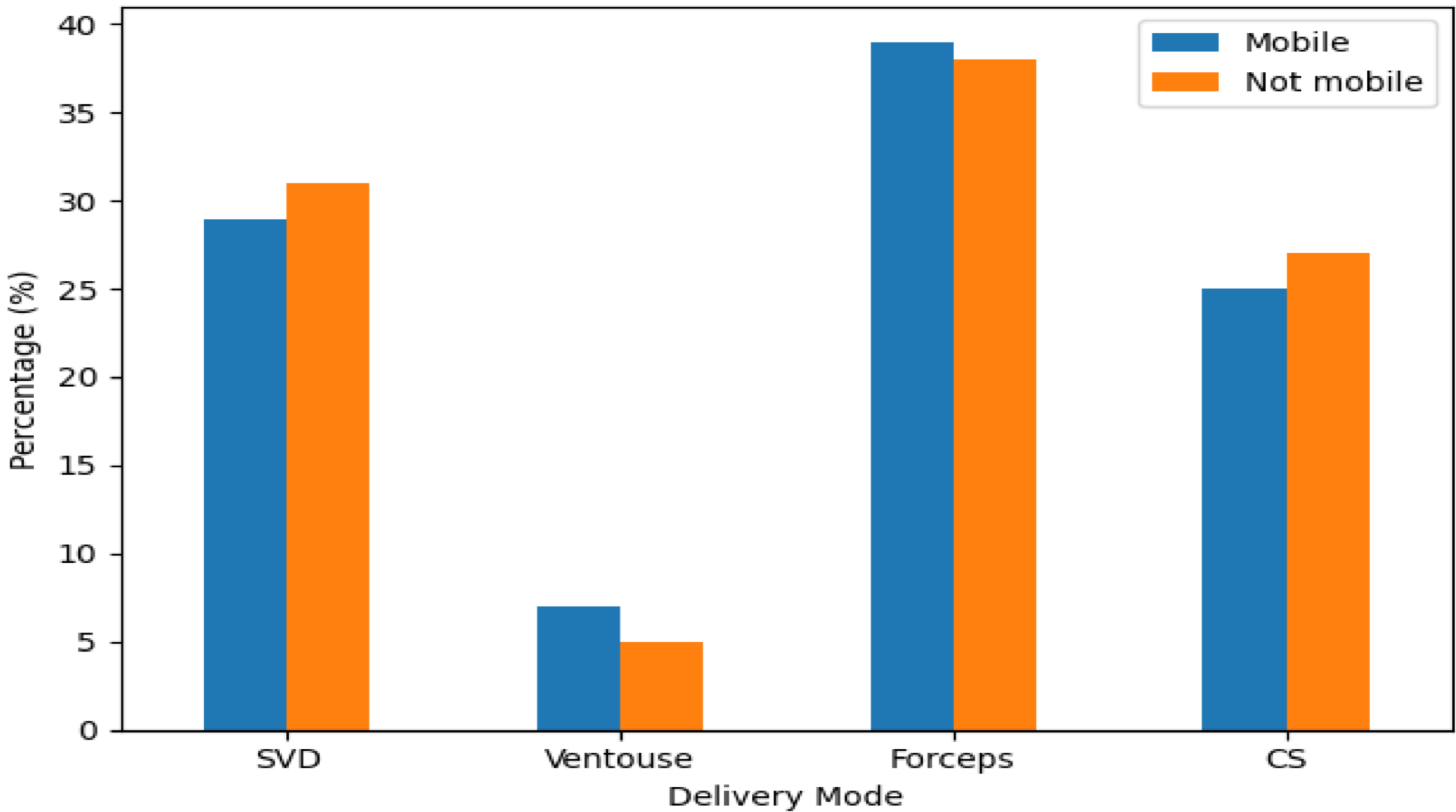


Figure 1: Comparing the percentage of mode of delivery in low risk women having epidurals in labour on whether they were mobile or non-mobile

Discussion

- Key finding:
 - Mobilisation after epidural insertion was not associated with a difference in mode of delivery
- Mobilisation rate:
 - 36% of women mobilised with epidural analgesia
 - Indicates room for improvement
- Factors influencing mobilisation:
 - Timing of epidural insertion during labour
 - Late insertion may limit time available to mobilise
 - Early insertion may be confounded by other factors affecting delivery mode
- Interpretation:
 - No observed impact of mobilisation on delivery outcomes in this cohort
- Potential benefits of mobilisation:
 - May improve maternal satisfaction and overall experience
- Conclusion:
 - No association between mobilisation and mode of delivery in low-risk women with epidurals at RIE
- Implications:
 - Further research needed
 - Explore maternal experience outcomes
 - Assess wider service-level impacts

References

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