

Highlighting recovery or spotlighting progression?

A service evaluation of neuraxial recovery in obstetric anaesthesia

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Introduction

Although serious neurological lesions such as vertebral canal haematoma are rare after obstetric regional analgesia/anaesthesia, early detection is crucial to avoid permanent harm.

The 2020 Association of Anaesthetists/OAA consensus safety guideline regarding neurological monitoring associated with obstetric neuraxial block recommended **prompt escalation of care and review by an anaesthetist if a woman was unable to straight leg raise at four hours.**[1]

The idea of **defining local neuraxial recovery times (specific to a unit)** to support development of a local safety protocol has been raised [2] and was the driver for this service evaluation.

Methods

To assess time to recovery after neuraxial regional anaesthesia, we applied a wristband to all eligible, consenting obstetric patients in recovery **following neuraxial anaesthesia for a peripartum theatre intervention** during the data collection period.

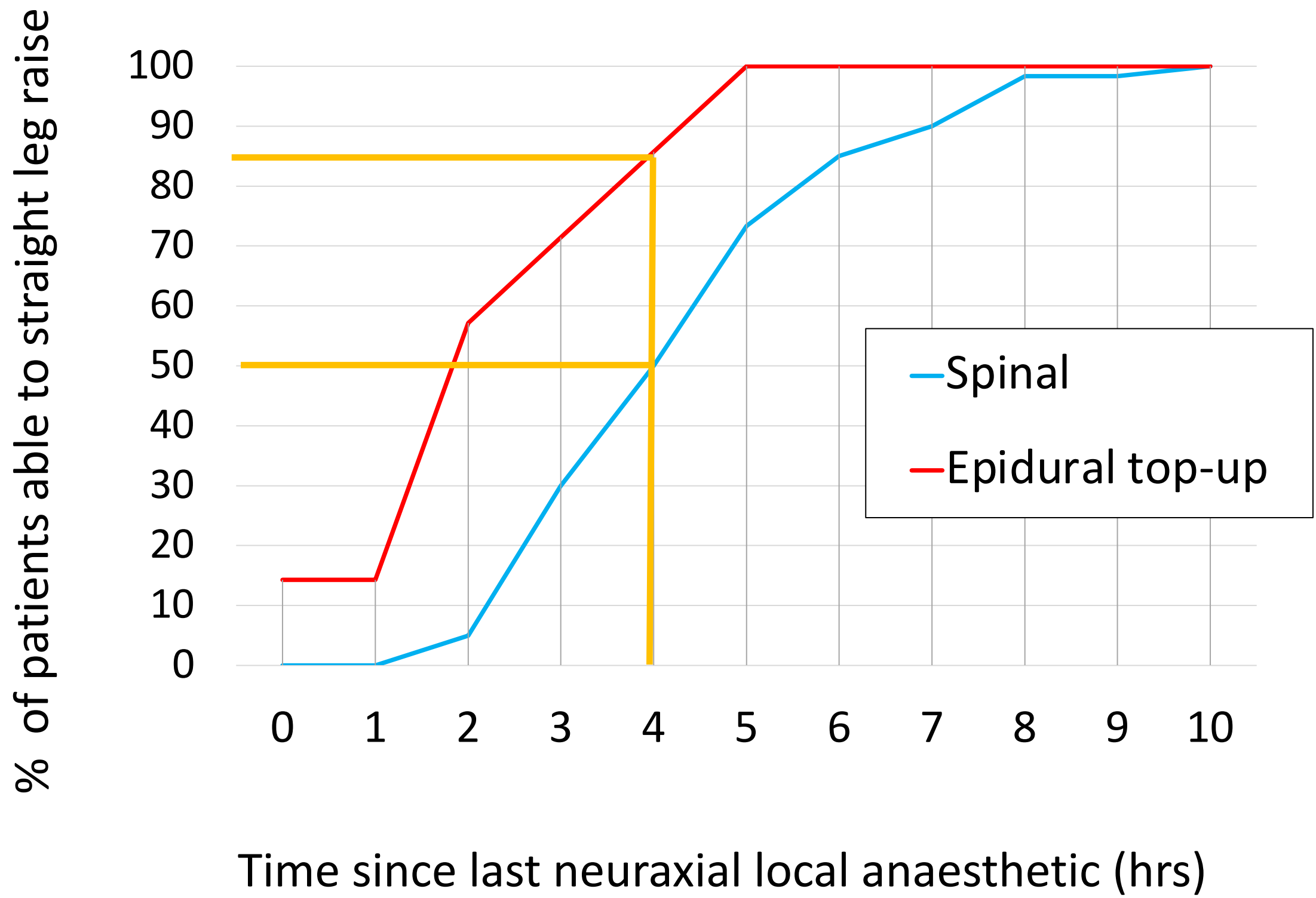


The time and type of last neuraxial anaesthetic intervention was recorded and **patients were then asked to document on the wristband the time at which they were first able to straight leg raise** before it was removed for data retrieval.

Results

Data was collected from 67 parturients (September-November 2025)

Motor recovery following neuraxial anaesthesia



Spinal recovery time (n=60)

Mean 4 hrs 9 min
Median 4 hrs
Range 1 hr 17 min - 7hr 39 min

Epidural recovery time (n=7)

Mean 2hrs 14 mins
Median 1hr 15 mins
Range 0 hrs - 5 hrs 58 mins

Discussion

Our data shows that only 50% of patients receiving our department’s standard obstetric spinal anaesthesia dose (2.6 mL 0.5% heavy bupivacaine with 300 µg diamorphine) were able to straight leg raise at 4 hours.

In contrast to this finding, 57% of epidural top-up cases (n=4) exhibited limited motor block. Time to straight leg raise recorded in this group ranged from 0 hrs - 1 hr 15 mins.

Next steps

We will use this data to support the development of a local safety guideline.

This service evaluation has highlighted the importance of picking up the **‘developing or progressive motor impairment’** in addition to the ‘failed resolution’ to support safety netting in those patients who do not develop or have only a short-lived motor block.

References
1.Yentis S, Lucas D, Brigante L et al. Safety guideline: neurological monitoring associated with obstetric neuraxial block. *Anaesthesia* 2020 Jul; 75(7): 913-919. Doi: 10.1111/anae.14993
2.Shippam W, Massey S, Clark K et al. Time to motor block regression after neuraxial anaesthesia for caesarean delivery: a retrospective, cohort study. *Anaesthesia* 2024; 79: 1125–1127. Doi: 10.1111/anae.16400
Publication/presentation of this abstract has been approved by the Trust audit department/Clinical Effectiveness Unit.