

Monitoring of neurological blockade after epidural insertion on Delivery Suite, Grange University Hospital (GUH).

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Introduction

In 2019 31% of women had an epidural for labour[1]. The safety guideline produced in 2020 by the Obstetric Anaesthetists' Association and the Association of Anaesthetists[2] on 'Neurological monitoring associated with obstetric neuraxial block' recommends that motor and sensory block should be assessed hourly to prevent rare, but serious, complications. We audited our documentation of neurological monitoring in the newly opened Grange University Hospital to compare our performance to the recommended guidelines.

Methods

This was a small covert audit in 2021 assessing documentation of labour epidurals including:

1. Duration of epidural
2. Assessment of straight leg raise (SLR) by anaesthetist (after insertion (<1hour) and any point subsequently,
3. Assessment of SLR by midwife (hourly)
4. Assessment of sensory blockade by anaesthetist (after insertion (<1hour) and any point subsequently with reasons)
5. Assessment of sensory blockade by midwifes (hourly).

Discussion

Complications from epidural placement can have devastating long term effects. Appropriate intrapartum monitoring can ensure prompt detection of neurological injury. No patients in this audit had hourly sensory and motor assessments as recommended. Anaesthetists appear to omit initial checks in sensory and motor block after establishment, with further sensory and motor block only being checked when an intervention is required. Midwives only checked motor block hourly in 3 of 24 patients and never checked sensory blocks. There may be many possible reasons for this: insufficient education, lack of space on intrapartum documents and low confidence in assessing blocks. The importance of improving this is paramount, exemplified by the one high block that occurred in this audit period. As a multidisciplinary team on labour ward we need to ensure that hourly checks are performed, whether that be by anaesthetists or midwives. We have also undertaken a survey of midwives, assessing training and confidence in monitoring of epidurals. These two pieces of work have led us to initiate an education programme for midwives and to update our intrapartum documents mandating closer monitoring of epidurals and allowing easier documentation. We will re-audit after implementing our changes to track improvement.

References

1 CQC- 2019 survey of women's experiences of maternity care Statistical release Published January 2020 Independent data analysis
2. Safety guideline: neurological monitoring associated with obstetric neuraxial block 2020- Anaesthesia 2020

Results

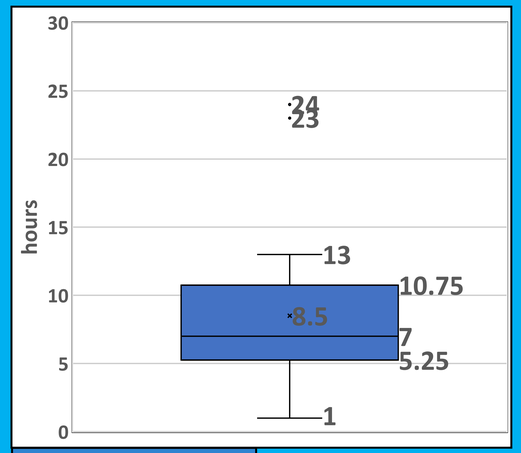


Figure 1. Epidural duration

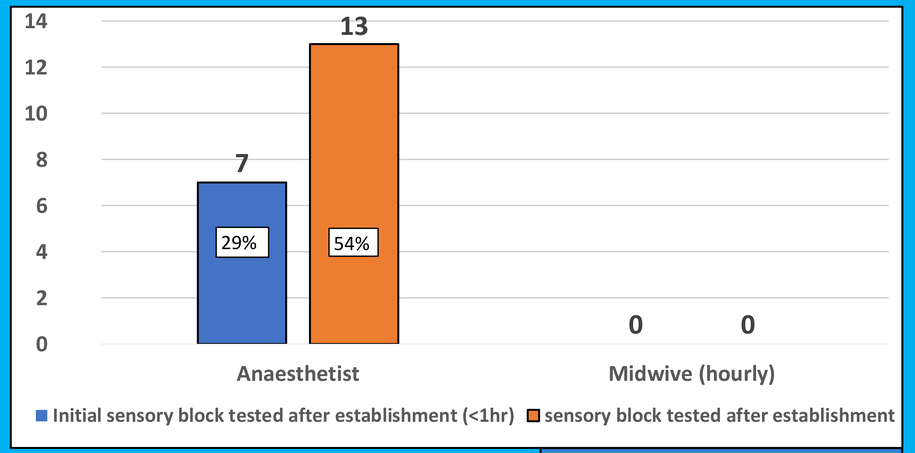


Figure 2. Sensory block assessment

24 patients notes examined

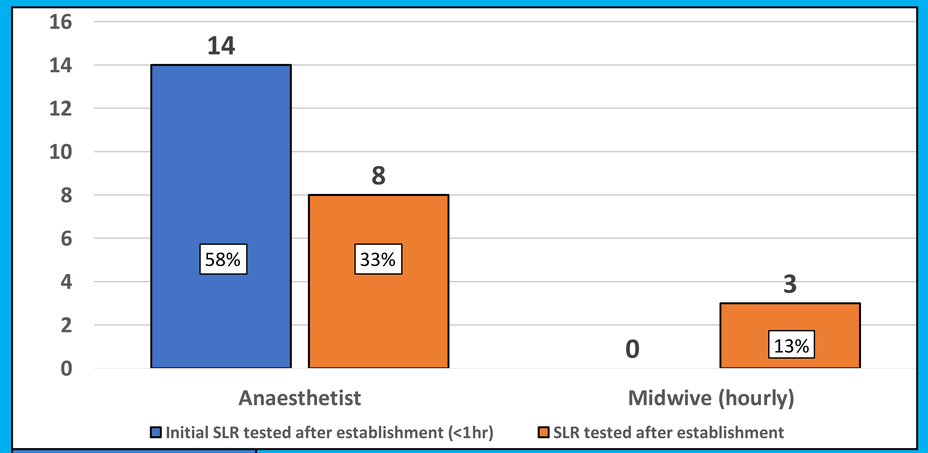


Figure 3. SLR assessment

3 patients had hourly SLR assessment

No patients had hourly sensory AND SLR assessment

Reason for subsequent check

Shift change	11
Pain	6

Complications found

High block	1