

A re-audit of epidural top up practice after implementation of an epidural top up policy.

S. Blouin, S. Walsh, E. Moynagh, R. Kallos, M. Sharapi, N. Hayes, T. Drew.

Introduction

In 2022, there were 1633 emergency caesarean sections (CS) performed in the Rotunda Hospital. To address variation in clinical practice, a policy on converting epidural analgesia to anaesthesia for CS was implemented. This recommended a lidocaine, adrenaline and fentanyl (LAF) mixture.

Methods

- We evaluated the electronic patient records of 200 intrapartum CS who delivered between February and July 2023 (Group L; post LAF policy) and compared them to 200 patients who delivered from July to October 2021 (Group C: pre LAF policy).
- We compared the local anaesthetic agents used, the volume administered, use of epidural fentanyl, need for supplemental analgesia, conversion to general anaesthesia (GA) and the prevalence of associated complications.

Results

- Lidocaine was used as a single agent in 199/200 (99%) of cases in Group L vs 70/200 (35%) in Group C, $p < 0.01$. In group C, lidocaine + bupivacaine was the most frequent combination (61.5%), followed by lidocaine + levobupivacaine (4%).
- In group L, 45% of patients received 15ml, 20% got 20ml, 14% got 10ml and the remaining 21% ranged from 5-19mls. [Figure 1.]
- 97.5% received epidural fentanyl.
- More patients in Group L required intraoperative supplemental analgesia. [Group L 37/200 (18.5%) vs Group C 16/200 (8%), $p = 0.01$].
- There was a higher proportion of Category 1 CS in Group L [Group L 32/200 (16%) vs Group C 12/200 (6%), $p = 0.01$. [Figure 2].
- The GA conversion rate was higher in Group L [21/200 (10.5%) vs Group C 12/200 (6%), $p = 0.11$].
- Out of 400 cases reviewed, one case suffered a high block requiring endotracheal intubation.

Figure 1: Volume of top ups given

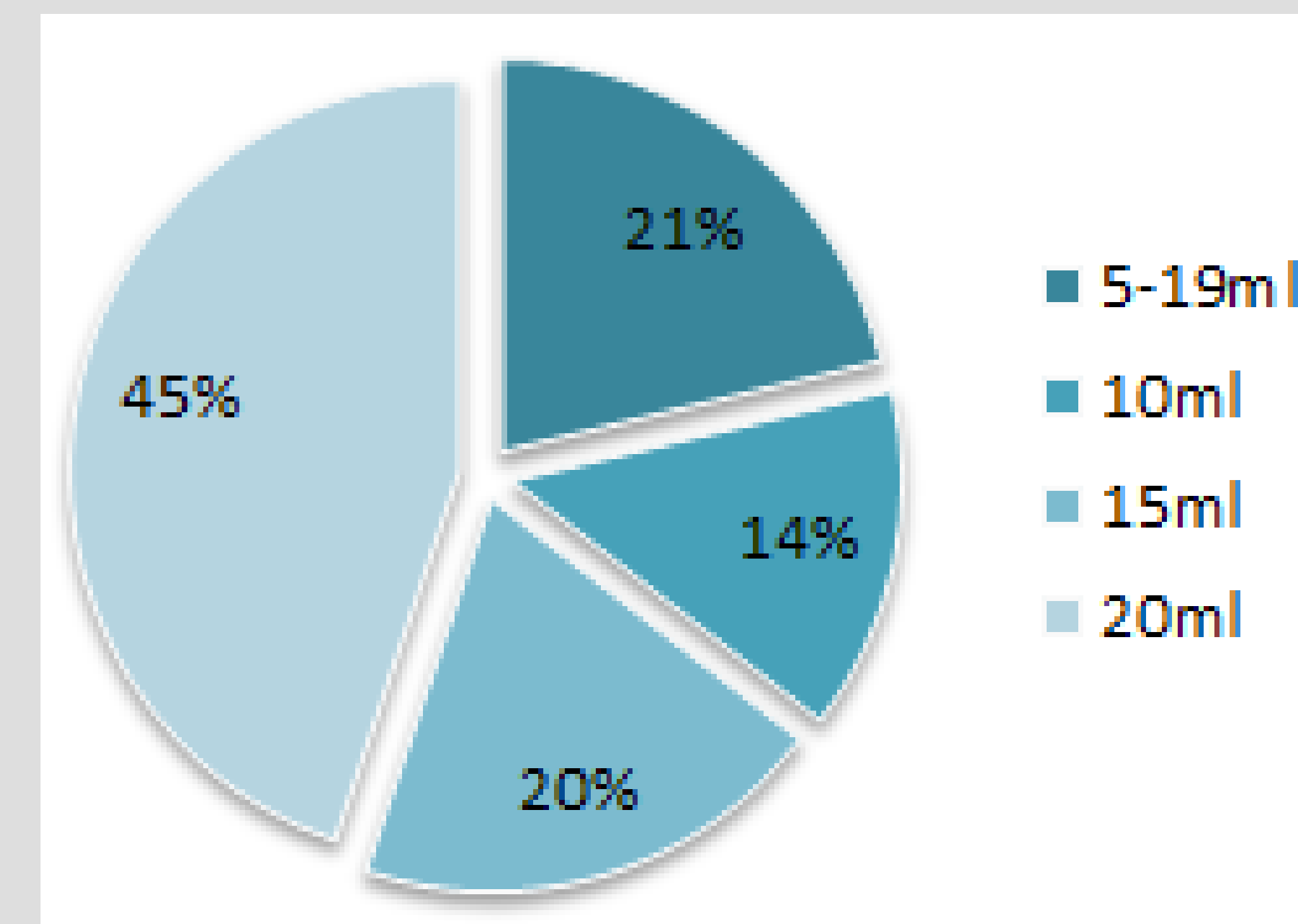
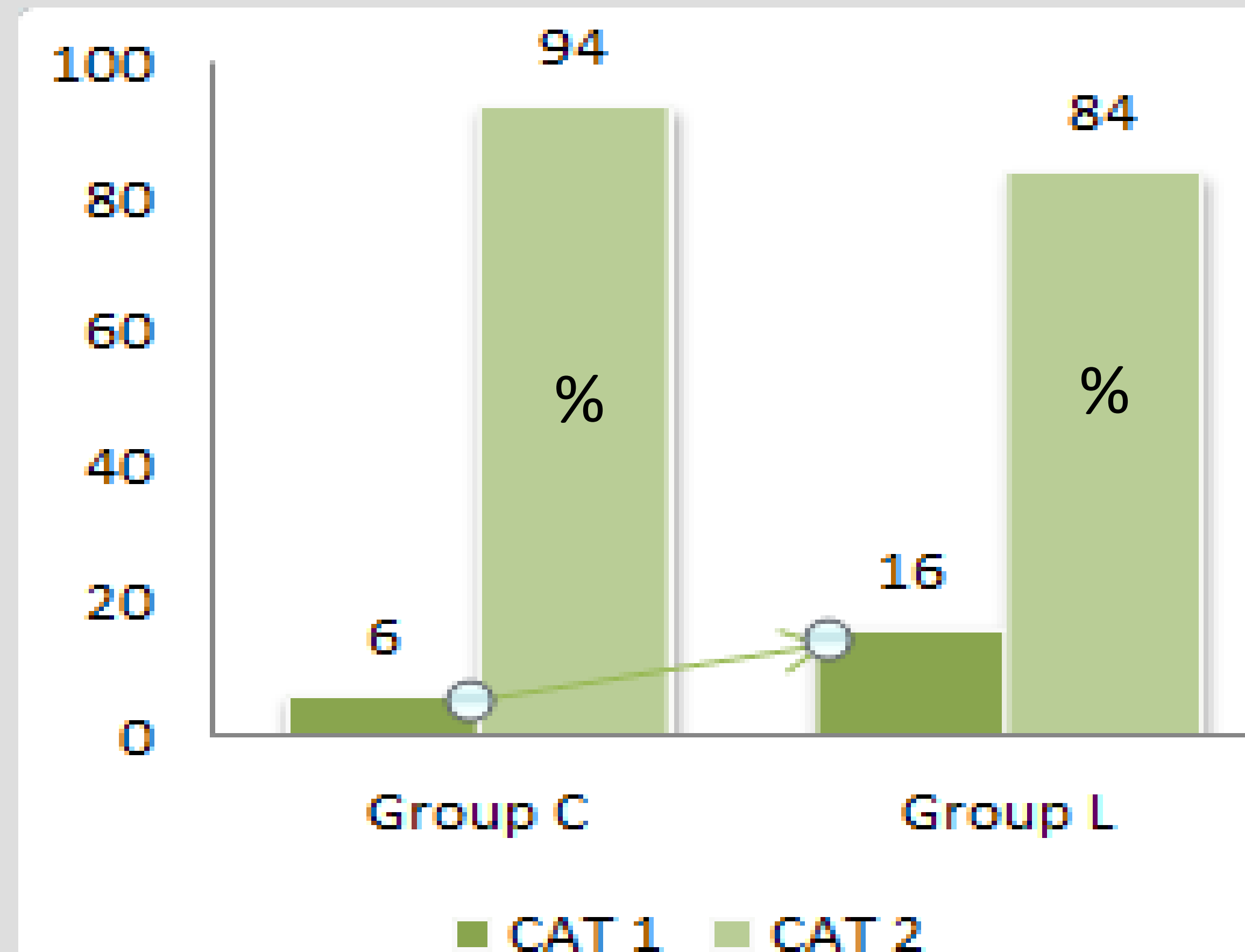


Figure 2: Proportion of category 1 and 2 caesarean sections.



Conclusion

- Compliance with the new epidural top-up policy was high.
- A standardised LAF epidural top-up did not reduce GA conversion rates and it increased the requirement for supplemental intravenous analgesia. However, the proportion of Category 1 caesarean sections was higher, which may account for this difference.

References

References:

1. The Rotunda Hospital Dublin Annual Report 2022, 67-71, available at https://rotunda.ie/rotunda-pdfs/Clinical%20Reports/2022Rotunda_AnnualReport.pdf?t=1693224199
2. Policy on the conversion of epidural labour analgesia to epidural anaesthesia for caesarean delivery at the Rotunda Hospital, E. Moynagh, T. Drew, 2022.