



TWO YEAR AUDIT OF GENERAL ANAESTHESIA AND GRADING OF URGENCY FOR CAESAREAN SECTION

Dr T McGimsey, Dr Q Awan, Dr M Issaam, Dr R ffrench-O'Carroll
Anaesthesiology, National Maternity Hospital

BACKGROUND

Regional Anaesthesia is the preferred anaesthetic technique for caesarean section (CS). General anaesthesia (GA) has a role in the most urgent indications for CS, however is associated with worse postoperative pain, delayed mobilisation and worse short term neonatal outcomes¹. All institutions should therefore monitor their rates of GA for CS.

The National Maternity Hospital grades urgency of CS into 'Immediate/Within 30 minutes/After 30 minutes'. This aims to better identify those cases which require general anaesthesia, compared to the conventional Category 1, 2 etc.

AIMS

- To determine the rate of GA for CS in our institution and compare it against the standards of the Royal College of Anaesthetists².
- To assess use of our hospital grading system of urgency
- To audit a number of secondary measures including anaesthetic technique, time to delivery and presence of epidural at time of delivery.

METHODS

This was a retrospective audit of all GA cases for CS over a two year period from June 2020 to July 2022. Data was obtained from the electronic health record (MN-CMS) database.

Data extracted included

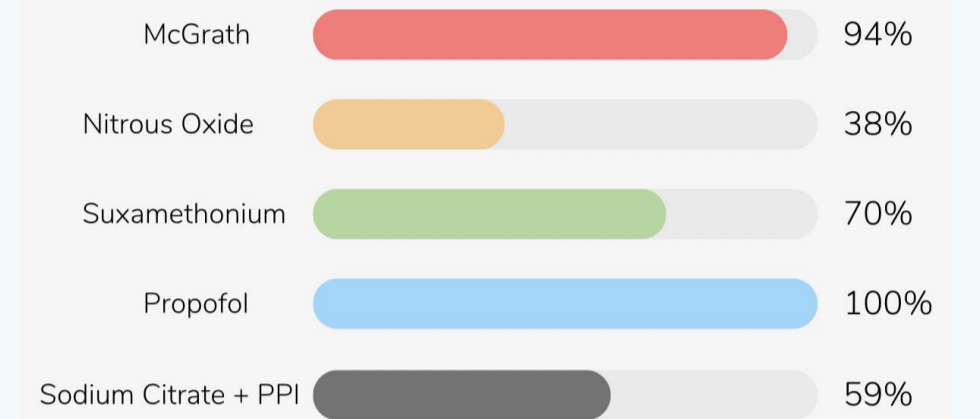
- Baseline demographics
- Indication for CS and GA
- Grading system of urgency used
- Anaesthetic techniques

References

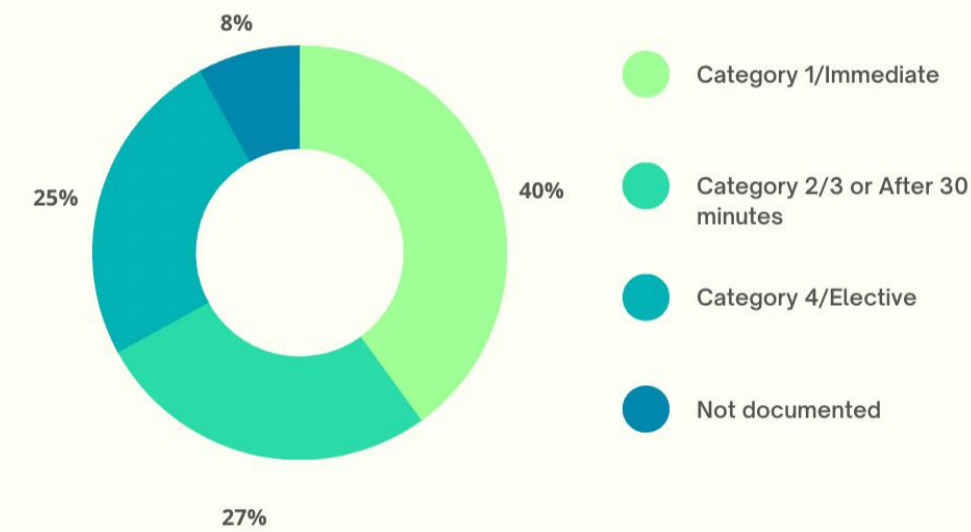
- Palmer et al. Operating room-to-incision interval and neonatal outcome in emergency caesarean section: a retrospective 5-year cohort study. *Anaesthesia*. 2018 Jul;73(7):825-831.
- Chereshneva et al. Raising the Standards: RCoA Quality Improvement Compendium. 4th edition, September 2020.

RESULTS

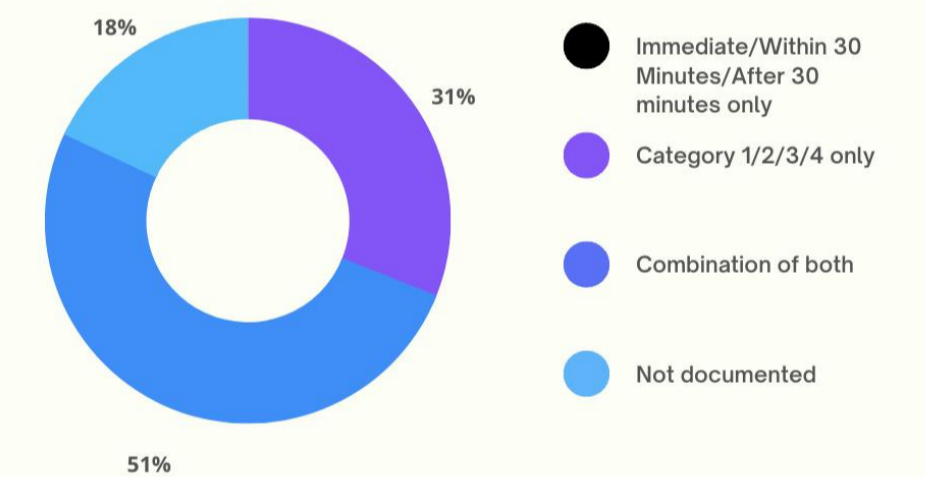
| | |
|-----------------------------|-------------------|
| Total GA Cases | 2.4% (118 / 4947) |
| GA Cases for Elective CS | 1.3% (30/2328) |
| GA for Emergency CS | 3.6% (88/2430) |
| Primary GA Cases | 1.6% (75/4947) |
| GA Conversion from Regional | 0.88% (43/4872) |



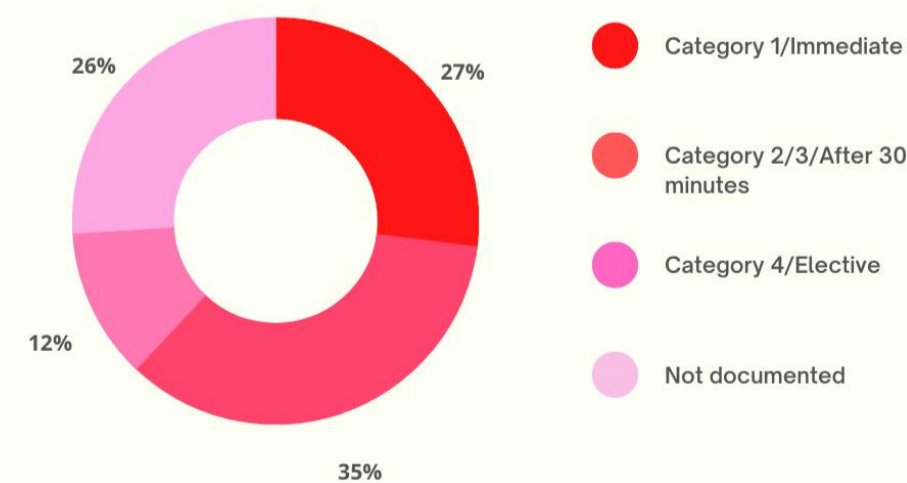
GA Urgency



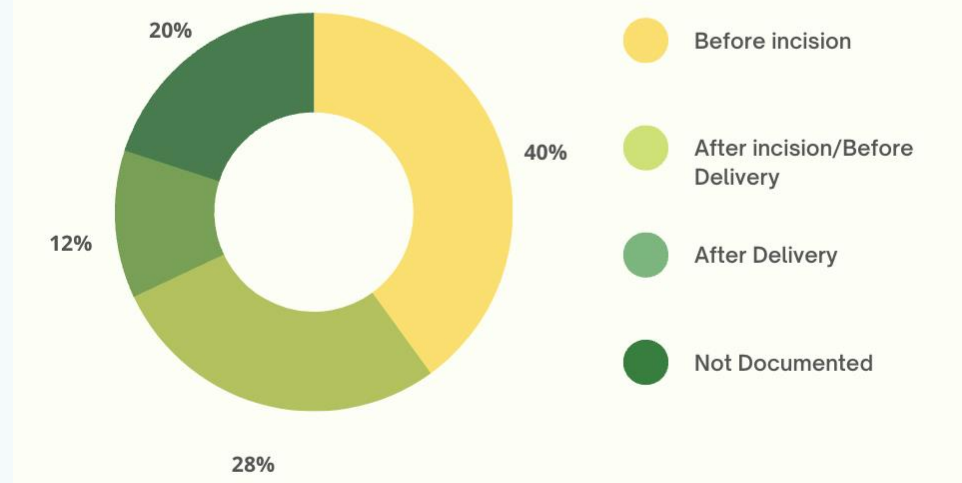
Grading System Used



Converted GA Cases by urgency



Converted GA Cases by urgency



- GA with Epidural in situ: 26%. TAP blocks given to 7% of GA patients without epidural.
- Anaesthesia start to delivery time in Category 1 Cases (mean): 6.81 minutes

Conclusion

Primary rates of GA and conversion of regional anaesthesia to GA are within recommended standards. However a significant number of patients with an epidural in situ still underwent general anaesthesia, which may be an area for improvements in terms of reducing rates of general anaesthesia.

No cases used only our hospital policy of grading urgency of anaesthesia, and a significant number did not use it at all. Finally there was a significant proportion of missing documentation across all domains of our audit. This audit thus identified multiple ways in which we can improve our conduct of general anaesthesia.