Survey of drugs used in obstetric emergency general anaesthesia in South Yorkshire Teaching Hospitals

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Introduction

Conventionally, thiopental and suxamethonium have been used for induction of general anaesthesia (GA) in the obstetric population. The 5th National Audit Project (NAP5)[1] identified obstetric anaesthesia to have the highest rate of accidental awareness (AAGA), with obstetric GAs accounting for 0.8% of those in NAP5 but 10% of reported AAGA cases. The majority of obstetric GAs in NAP5 used thiopental as the induction drug despite its declining use outside of obstetrics. In the South Yorkshire region there is no standardised regimen for pre-drawn drugs used for emergency obstetric GAs. This survey aimed to identify differences in practice.

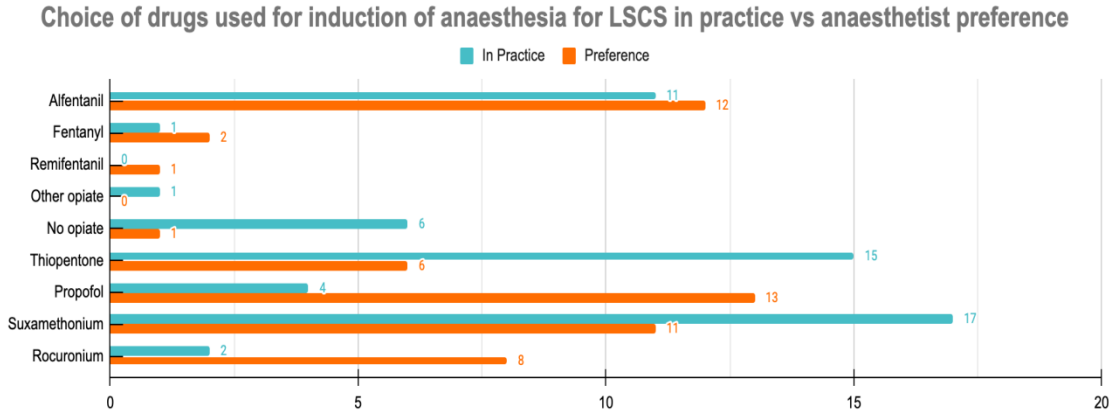


Methods

Five hospitals in South Yorkshire were included - Jessops Wing (Sheffield Teaching Hospitals), Doncaster Royal Infirmary, Bassetlaw District General Hospital , Barnsley District General Hospital and Rotherham District General Hospital. Approval was sought from each hospital. An electronic or paper copy of the survey was provided to trainee, staff grade and consultant anaesthetists who provided regular in- and out-of-hours obstetric cover. Questions examined what pre-drawn emergency drugs were available to the anaesthetist. Feedback was requested regarding whether this influenced the drugs which that anaesthetist used and if the anaesthetist drew up alternative drugs or would prefer alternatives.

Results

In total 68 responses were received (>90% response rate).). The respondents were a mix of grades: 52% consultants, 28% SAS grade and 20% trainees. All 5 hospitals had a similar proportion of respondents. Four hospitals had pre -drawn emergency drugs available to the anaesthetist and 61% of anaesthetists personally drew up additional emergency drugs when on shift. Of the departments that had pre-drawn drugs; 75% used thiopental, suxamethonium was available at all hospitals as was atropine and 75% of the hospitals also had phenylephrine. In practice 56% of anaesthetists use alfentanil for emergency GA sections. Just over half (58%) use thiopental for induction with 75% indicating they would prefer to use propofol. Again just over half (56%) of respondents indicated that pre-drawn drugs did not influence their choice of drug used.



Discussion

The traditional approach to GA in obstetrics was seen within this survey with the widespread use of thiopental and suxamethonium. It is of interest that 75% of those surveyed stated they would prefer to use propofol for induction which is in keeping with more recent literature[3], and possible changes to common practice. This choice of induction agent is topical: a report into maternity care from 2014 identified cases of inappropriately high thiopental doses at induction[4] (possibly due to lack of familiarity with the drug or due to poor identification of haemodynamic instability in pregnant patients) yet NAP5 suggested that inappropriately low doses may have contributed to AAGA[1]. Trainee involvement has been highlighted as a consistently probable contributory factor to adverse outcomes, particularly relating to AAGA. Given the above it may be reasonable to consider a standardised approach to these emergent, time-critical cases. The debate surrounding choice of drugs might point against an overly prescriptive approach to these scenarios - emphasising the importance of avoiding unfamiliar techniques when alone or out-of-hours.

References

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