Obstetric rapid sequence induction: A national survey of current practice

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Introduction

Anaesthetic practice for obstetric rapid sequence induction (RSI) shows great variation. Earlier surveys demonstrated widespread use of the "classical" agents thiopentone and suxamethonium, with NAP6 reporting suxamethonium use in over 90% of obstetric RSIs. Concern regarding accidental awareness, highlighted by the DREAMY study[1], has prompted re-evaluation of traditional techniques. Increasing use of rocuronium, propofol and interest in total intravenous anaesthesia (TIVA) suggest that obstetric RSI practice is evolving. This survey aimed to provide an updated view of current obstetric RSI practice among Obstetric Anaesthetists' Association (OAA) members in the UK and Republic of Ireland.

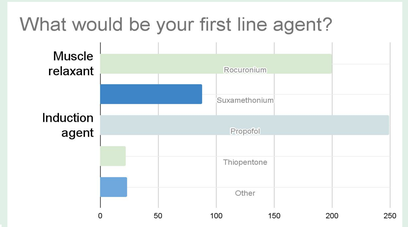
Method

A survey was constructed via the OAA online survey platform and sent out to all active members. The survey consisted of 17 questions, as well as an open ended box at the end for comments. In October 2025 a total of 2371 members were sent the survey and it was open for 2 months.

Results of the Survey

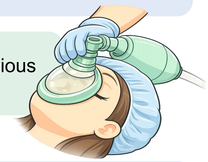
There were 281 responses from 2371 members, giving a 12% response rate. 20 responses from clinicians working outside the UK and Ireland were excluded. A good distribution of responses were received from around the UK and Ireland. 78% of respondents were consultants.

Do you have a trust protocol for Obsteric RSI? **43%** *said yes*. Where a protocol existed, **78%** had rocuronium and **82%** had propofol has the preferred drug choices. We also asked all respondents which their first line personal drug preferences are. A similar pattern was seen (see chart). There were strong opnions stating it should always be left up to clinician choice / experience. Several commented that they would use Thiopentone more if it was more readily available.



Use of TIVA in obstetric RSI: 9% of respondents stated that TIVA is regularly used in their unit. Only 1 respondent had pre-prepared syringes available.

48% of the respondents use gentle mask ventilation in the apneoic period, an increase on previous surveys. 26% ventilate depending on the scenario.



38% of respondents always use opioids, with the majority stating it would depend on the clinical scenario and 4% stating they never use opioids. Many commented they would in hypertensive disorders and would avoid if suspecting foetal distress.

Alfentanil was the most popular opioid with **76%** using this as their go to agent.

Use of high flow oxygen is still not used routinely for preoxygenation in most units, as **65%** answered they would use it rarely or never.

Half of respondents use nitrous oxide in most instances, and 27% never use it - with many citing lack of access

Cricoid pressure was routinely used by **79%**. Many comments referred to having a low threshold for releasing cricoid pressue

Strong opinions…

"Experience is key, not protocols or competencies!"

"Anyone using thio/sux needs to change, we changed 10 years ago"

"Whichever the anaesthetist is most comfortable with" (multiple quotes)

"In my opinion this shouldn't even still be a discussion!" (sux vs Roc)

"Would love to use TIVA routinely"

"Protocols are often useful but also cause rigidity"

Discussion

The topic of best practice in Obstetric RSI is hotly debated. While many anaesthetists still use a combination of Thiopentone and Suxamethonium, this survey shows a definite shift from the "classical" obstetric RSI. Propofol and rocuronium predominate in departmental protocols and individual practice, reflecting evolving evidence, concern regarding awareness, improved reversal options, and drug availability.

The results show a preference for individualised decision-making dependent on clinical scenario. Increased use of gentle mask ventilation, and selective opioid administration indicate prioritisation of oxygenation, haemodynamic control and awareness prevention over rigid adherence to a traditional RSI. Cricoid pressure remains widely used but applied pragmatically. TIVA use is low, but this may change given its increasing popularity. Nitrous oxide use appears to be declining, in particular due to environmental concerns and increasing numbers of hospitals removing it from their manifold.

It would be interesting to further repeat this survey in 10 years to see whether TIVA use has significantly increased.

References

1.Odor, P.M., Bampoe, S., Lucas, D.N., Moonesinghe, S.R., Andrade, J., Pandit, J.J. and Pan-London Peri-operative Audit and Research Network (PLAN), for the DREAMY Investigators Group (2021), Incidence of accidental awareness during general anaesthesia in obstetrics: a multicentre, prospective cohort study. Anaesthesia, 76: 759-776. https://doi.org/10.1111/anae.15385