

An Audit of Uterotonic Selection: Optimising PPH Management in Caesarean Deliveries

Dr C Lambert, Dr S Hyder - Northampton General Hospital

Introduction

- Carbetocin, a long-acting synthetic oxytocin analogue, has been introduced into routine practice in Northampton General Hospital (NGH).
- NICE guidance (NG235) recommends carbetocin as the first-line prophylactic uterotonic for caesarean delivery and advises, where further uterotonics are required, selection should take account of agents already administered.¹
- Informal observation identified continued reliance on oxytocin despite the absence of guidance supporting co-administration.

Aim

- To assess adherence to NG235 and identify opportunities to optimise pharmacological PPH management during caesarean delivery.

Methods

- Retrospective review of anaesthetic charts for all caesarean deliveries within one week (1–8 September 2025) in NGH.
- Uterotonic choice assessed against NG235 recommendations.
- A questionnaire distributed to obstetric and anaesthetic clinicians explored attitudes, knowledge, and perceived barriers to guideline implementation.
- Approved by the local audit committee.

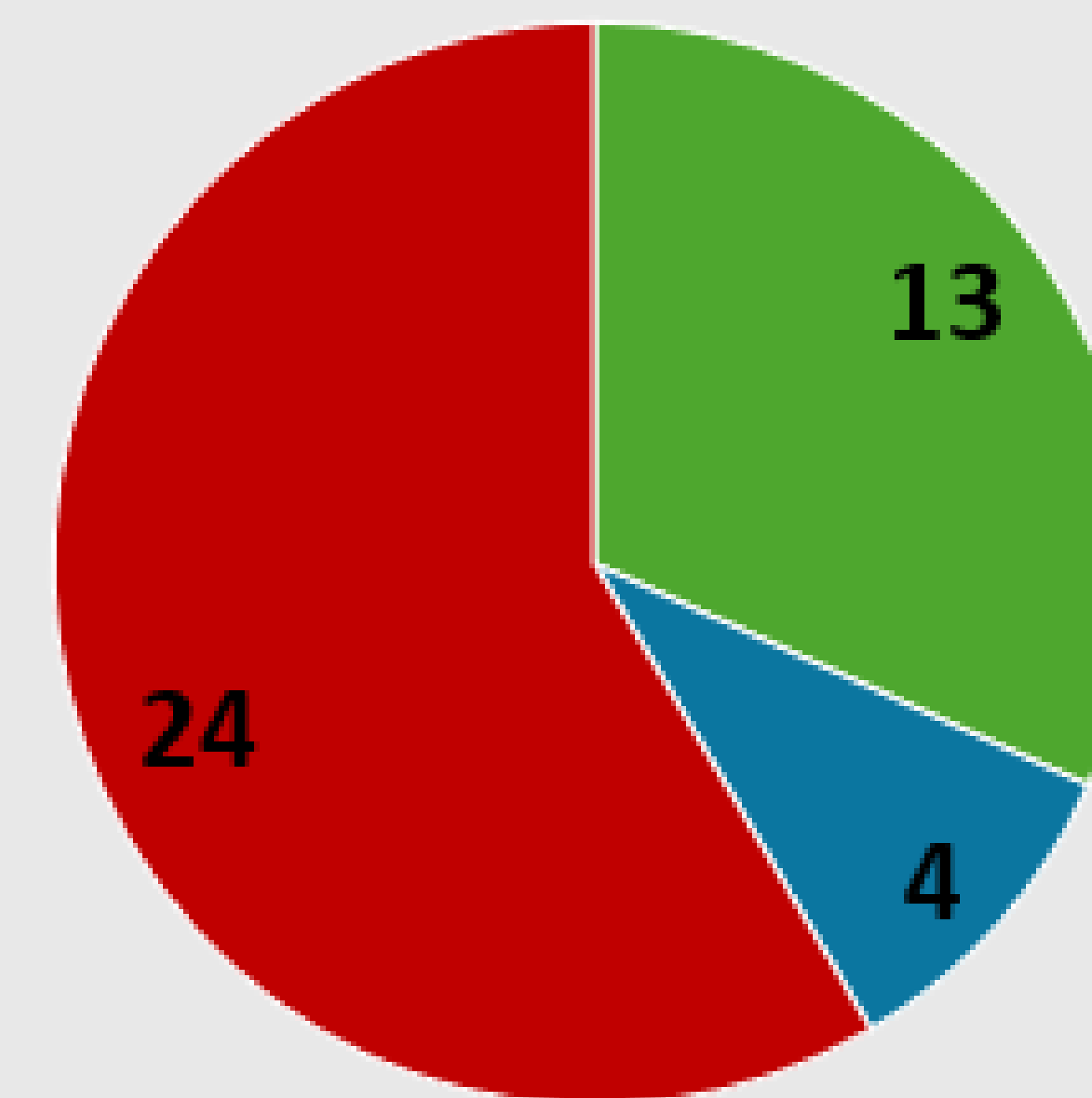
Reference

1. National Institute for Health and Care Excellence (NICE). NG235. Intrapartum care. Published 2023, updated 2025.
www.nice.org.uk/guidance/ng235/chapter/Recommendations (Accessed 11 January 2026).

Results

- **41** caesarean deliveries identified.
- All received carbetocin, demonstrating **100%** compliance for prophylaxis.
- **28** required additional uterotonics, of whom **24** received carbetocin in combination with oxytocin.
- When more than one uterotonic was administered, compliance fell sharply to **4 of 28 cases (14.3%)**.
- In all non-compliant cases, co-administration of carbetocin and oxytocin was identified.

Breakdown of 41 cases identified



- Prophylactic agent only - Carbetocin in all cases
- More than one uterotonic - NG235 compliant
- More than one uterotonic - NG235 non-compliant

Questionnaire outcome

- Responses demonstrated continued reliance on oxytocin infusions and variable awareness of NICE guidance.
- **34 of 37** respondents were willing to implement recommendations into practice.
- Perceived barriers included clarity of local guidance, concern regarding efficacy and side effects of alternative agents and historical reliance on oxytocin infusions.

Discussion

- Persistent reliance on oxytocin infusions appears driven by ingrained practice and uncertainty rather than opposition to guidelines.
- Targeted multidisciplinary education, local guideline revision, and decision-support tools are likely to improve compliance.
- With widespread introduction of carbetocin, these findings are relevant beyond NGH.
- Re-audit is planned to assess the impact of these quality improvement interventions on standardising PPH management.

Key message

NICE compliance for uterotonic selection in caesarean delivery fell from **100% to 14.3%** when more than one agent was used; co-administration of carbetocin and oxytocin occurred in all non-compliant cases.