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Introduction

Current guidelines (RCOG, RANZCOG, NICE)¹ recommend a slow intravenous bolus of 5 international units (IU) of oxytocin at Caesarean deliveries as prophylaxis to reduce incidence of postpartum haemorrhage (PPH; blood loss >500ml). There is anecdotal evidence of additional use of oxytocin infusion (40IU over 4 hours) and/or other uterotonic agents. Some research show the use of additional oxytocin infusion reduces the need for other uterotonic agents but did not affect major PPH (>1000ml) outcome.²

Objectives

- To evaluate prescribing patterns of oxytocin and other uterotonic agents at elective Caesarean sections at a metropolitan maternity service
- Suggest improvements to current guidelines and future implications

Oxy Bolus + Infusion	No PPH	PPH	Total
No	96	25	121
Yes	589	201	790
Total	685	226	911

Table 1. Cases receiving oxytocin bolus + infusion and their outcomes.

Methods

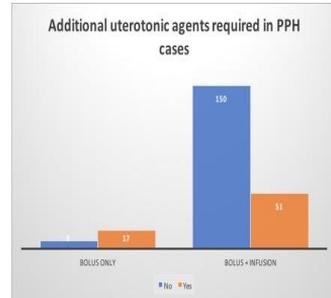
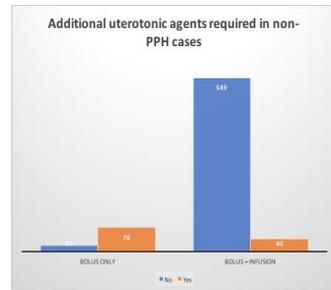
- Reviewed current guidelines on prophylactic uterotonic agents to use for Caesarean sections
- Retrospective review of Birth Operating System (BOS), anaesthetic and medical records for all elective Caesarean sections in calendar year 2017, oxytocin +/- other uterotonic agents prescribed and outcome of PPH >500ml
- Reviewed current evidence of various oxytocin and other uterotonic prescribing patterns and their outcomes

Conclusion

- Giving oxytocin bolus + infusion did not reduce PPH >500ml compared to bolus alone
- Giving oxytocin bolus + infusion significantly reduced need for other uterotonic agents compared to bolus alone
- In recipients of oxytocin bolus + infusion, the proportion who needed further uterotonic agents in the non-PPH group is significantly less than in PPH group
- Long-acting uterotonics (e.g Carbetocin) may reduce need for other uterotonic agents³

Results

- 87% of elective Caesarean section cases received additional 40IU oxytocin infusion, regardless of intraoperative blood loss or risk factor profile
- 25% of cases had outcome of PPH >500ml



References

- Royal College of Obstetricians & Gynaecologists. (2016). *Postpartum Haemorrhage, Prevention and Management (Green-top Guideline No. 52)*.
- Sheehan, S., Montgomery, A., Carey, M., McAuliffe, F., Eogan, M., Gleeson, R., Geary, M. and Murphy, D. (2011). Oxytocin bolus versus oxytocin bolus and infusion for control of blood loss at elective caesarean section: double blind, placebo controlled, randomised trial. *BMJ*, 343, pp.d4661-d4661.
- Attilakos, G., Psaroudakis, D., Ash, J., Buchanan, R., Winter, C., Donald, F., Hunt, L. and Draycott, T. (2010). Carbetocin versus oxytocin for the prevention of postpartum haemorrhage following caesarean section: the results of a double-blind randomised trial. *BJOG: An International Journal of Obstetrics & Gynaecology*, 117(8), pp.929-936.

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