

Carbetocin: A Game-Changer in Preventing Postpartum Haemorrhage, Enhancing Efficiency and Patient Experience

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INTRODUCTION

Postpartum haemorrhage (PPH) is a leading cause of maternal morbidity and mortality worldwide. Carbetocin has shown benefits in reducing the rate of PPH after Caesarean deliveries and resulted in a statistically significant reduction in the need for further uterotonic^[1] Moreover, Heat-stable Carbetocin does not require cold transportation or storage making it ideal for low-resource countries.^[2]

OBJECTIVE

This study aimed to evaluate the impact of introducing Carbetocin at Hinchingbrooke Hospital on the rates of PPH and the use of additional uterotonic, addressing its clinical and resource implications.

METHODOLOGY

This was a transformative retrospective clinical audit comparing vast patient data across two distinct time periods: April 2022 to March 2023 (n=705, before Carbetocin introduced) and June 2023 to May 2024 (n=759, after Carbetocin introduced). Data was collected retrospectively from the institution's electronic health systems. A total of 1464 patient records were accessed, with variables analysed including patient demographics, uterotonic utilization, and estimated blood loss.

RESULTS

Introduction of Carbetocin reduced the proportion of cases with blood loss exceeding 500 mL from 73% to 61%. There was a notable reduction in cases with blood loss exceeding 1500 mL, which declined from 17% without Carbetocin to only 4% with its use. The need for Oxytocin infusions showed a dramatic reduction, declining from 77.6% to merely 1.7%. No Oxytocin infusions were required in women who received Carbetocin, contributing to a shorter length of stay on the delivery suite. The introduction of Carbetocin significantly reduced the need for additional uterotonic. The proportion of cases requiring additional uterotonic declined from 78% to 21%, leading to reduced side effects and improved patient satisfaction.

CONCLUSIONS

Our results demonstrated a superior efficacy of Carbetocin in lowering PPH rates and reducing the need for additional uterotonic agents following caesarean sections than previously documented. These outcomes support its use as a preferred first-line prophylactic uterotonic for caesarean deliveries. However, should its benefits extend to vaginal deliveries? Further research is needed to evaluate its efficacy in this context. This evidence highlights the potential for broader applications of Carbetocin in Obstetrics to enhance patient outcomes and optimise resource utilisation.

REFERENCES

1. Su LL, Chong YS, Samuel M. Carbetocin for preventing postpartum haemorrhage. Cochrane Database Syst Rev 2012;(4):CD005457
2. Malm M, Madsen I, Kjellström J. Development and stability of a heat-stable formulation of carbetocin. J Pept Sci. 2018 Jun;24(6):e3082.

Figure 1: Comparison of Caesarean cases with EBL > 500ml and > 1500ml before and after the introduction of Carbetocin

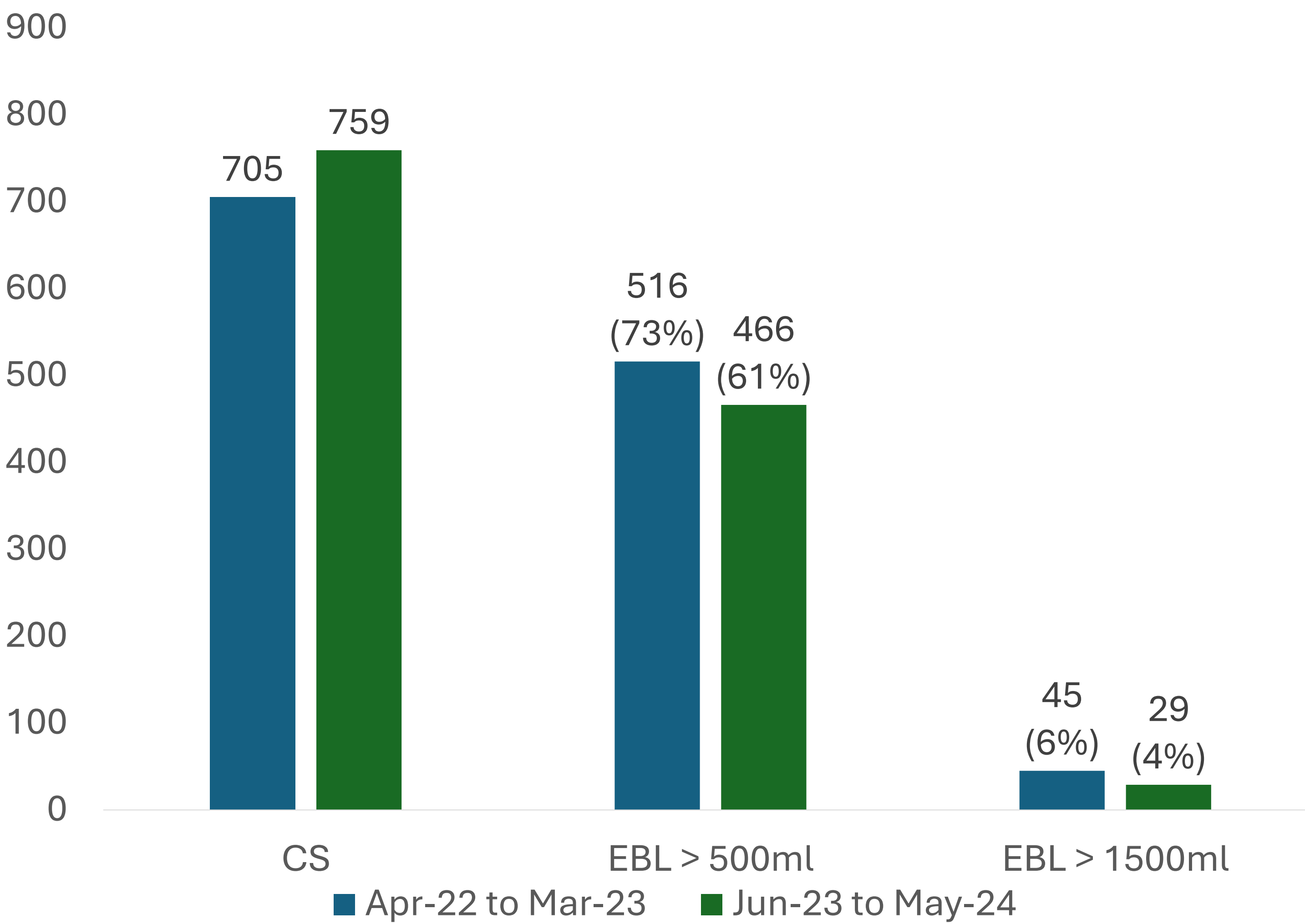


Figure 2: Comparison of usage of additional uterotonic before and after introduction of Carbetocin

