

# Reduction in unnecessary blood product transfusion following introduction of point of care testing coagulation in post-partum haemorrhage

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## INTRODUCTION

- As part of the Obstetric Bleeding Study-UK (OBS-UK) quality improvement (QI) intervention, we introduced point-of-care thromboelastography (TEG-6®) to guide targeted correction of coagulopathy in postpartum haemorrhage (PPH).
- Prior to this, there was a 30-60 minute delay in receiving laboratory coagulation results.
- We assessed the impact of TEG-6® on inappropriate transfusion and blood product wastage.



## METHODS

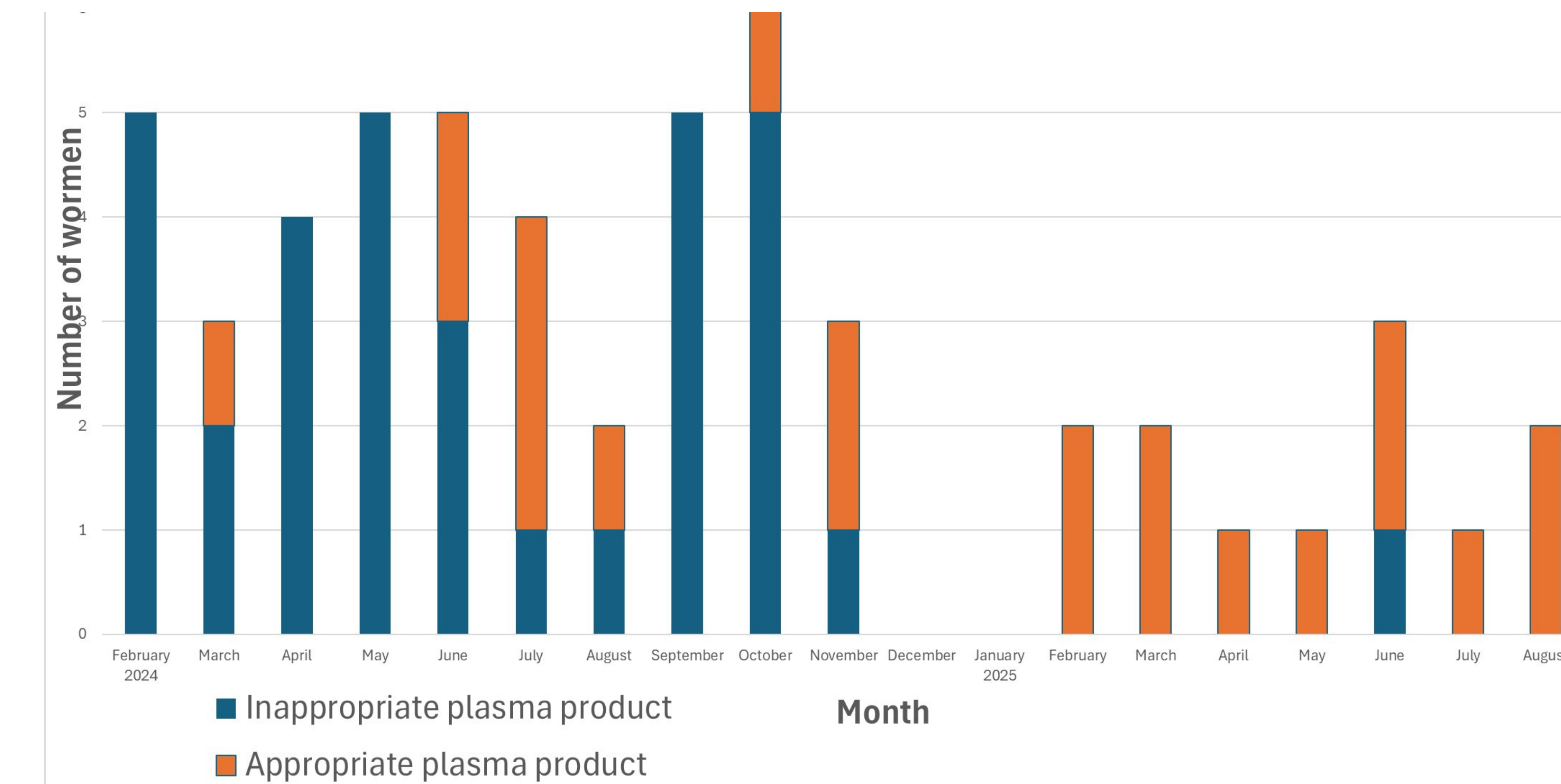
- The TEG-6® device and consumables were obtained through OBS-UK and Haemonetics.
- Data on all coagulation products transfused for PPH were collected by our transfusion practitioner and analysed as part of the OBS UK QI program.
- Cryoprecipitate was considered appropriate if fibrinogen was  $<2.0$  g/L or CFF A10  $<17$  mm. Fresh frozen plasma (FFP) was appropriate if  $\geq 4$  units of red cells were transfused or if PT, APTT, or CK-R were deranged.
- NHS costs are £241 per unit of cryoprecipitate and £47 per unit of FFP [1].
- Ten-month periods before and after implementation were compared.

## RESULTS

- Following the introduction of the TEG-6®, the number of women receiving unnecessary coagulation products dramatically reduced, and appropriate transfusions remained similar (figure 1).
- Wastage of blood products (inappropriate or non-transfused) was markedly reduced (cryoprecipitate: 56 to 9 units; FFP: 16 to 2 units), equating to an estimated annual cost saving of £14,393.



Figure 1: Number of women per month receiving coagulation products for PPH appropriately and inappropriately



## CONCLUSION

- In acute PPH, absence of point-of-care coagulation testing necessitates empiric transfusion, increasing the risk of avoidable patient harm through over/under transfusion and transfusion reactions. In our cohort, one patient had an allergic reaction to FFP due to IgA deficiency.
- Introduction of TEG-6® reduced inappropriate exposure to coagulation products, improving patient safety while reducing wastage and cost.
- Inclusion of device and consumable costs suggests the intervention remains cost-neutral to cost-saving.

## REFERENCES

1. NHS Blood and Components Cost per item. <https://hospital.blood.co.uk/components/portfolio-and-prices/> (accessed 27 January 2026)