

Influences on the use of tranexamic acid in surgery: a qualitative study using the Theoretical Domains Framework

Introduction

Tranexamic acid (TXA) is an antifibrinolytic drug that reduces blood loss. Despite strong evidence and guidance, around a third of eligible surgical patients at risk of major blood loss in the United Kingdom (UK) do not receive this low-cost intervention (1). Understanding this translation gap between evidence and practice is essential to allow the design of effective strategies to increase use and improve patient outcomes.

Methods

We purposively sampled clinicians (n=22) within Oxford University Hospitals NHS Foundation Trust. Our semi-structured interviews, conducted online, drew upon the Theoretical Domains Framework (2) to elicit beliefs and attitudes that influenced TXA use. We analysed data inductively using thematic analysis. We mapped themes to theoretical domains. Priority domains were identified.

Ethics

This study was approved by the Medical Sciences Interdivisional Research Ethics Committee (MS IDREC) Number: R85942/RE001.

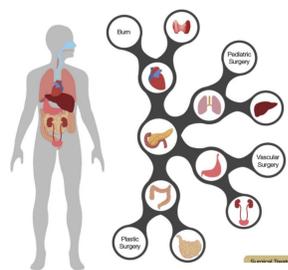
Participants included

- Anaesthetists
- Surgeons
- Anaesthetic/cell salvage practitioners (operating department practitioners/anaesthetic nurses)

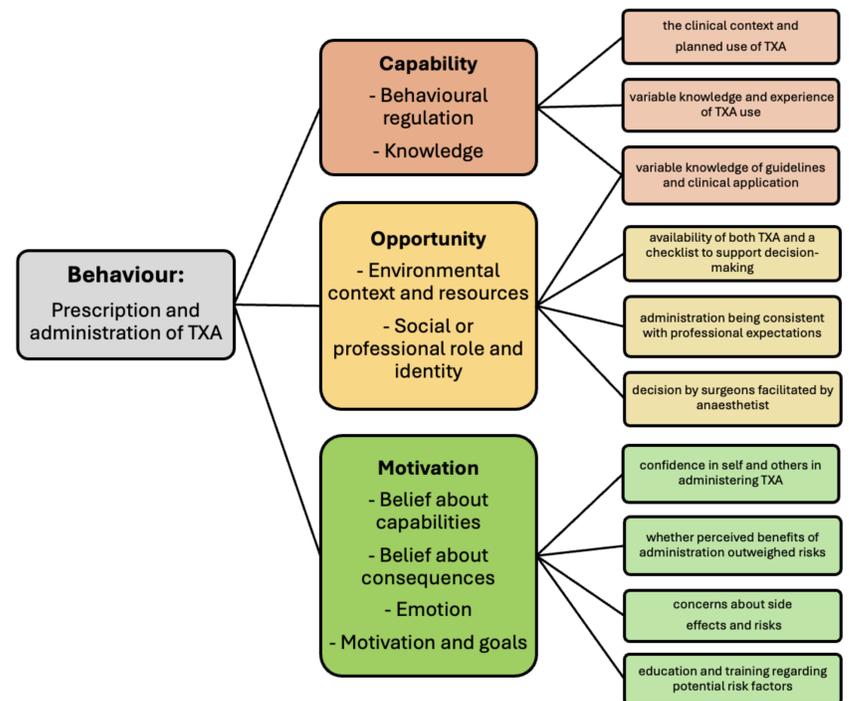


Specialities included:

- Orthopaedics
- General
- Vascular
- Neurosurgery
- Obstetrics
- Cardiac



COM-B model for behaviour change



Key Points

Principal influencers of TXA use were:

- Normalising use by inclusion in the WHO surgical checklist
- Availability in theatre
- Cost effectiveness
- Ease of administration
- Use was supported by education (conferences) and familiarity with guidelines.
- A lack of understanding of TXA's pharmacology
- Inadequate training
- Speciality specific concerns around perceived risks of use.

Confidence of use was highly variable and whilst recent blood shortages have heightened awareness and use of TXA, there was evidence of a lack of education, evidence sharing and support to enhance its clinical application and address speciality-specific concerns.

Next steps

We are planning a series of clinician driven workshops to consider:



Ultimately, we hope to produce a clinically driven implementation strategy to increase the appropriate uptake of tranexamic acid in surgery in accordance with the NICE guideline and quality standard for transfusion

Conclusion

Our study provides a rationale for targeted implementation research to promote uptake of TXA surgical use, which is a pressing need given the challenges of meeting transfusion demand in many areas of the world.

These influencers will guide the selection and tailoring of evidence-based strategies to enhance wider TXA perioperative use, which has been shown to safely reduce requirements for red cell transfusion.



IMPLEMENTATION

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References

1. NHS Blood and Transplant (2023). National Comparative Audit of Blood Transfusion. <https://hospital.blood.co.uk/audits/national-comparative-audit/reports-grouped-by-year/2023-national-comparative-audit-of-nice-quality-standard-qs138/>
2. Michie S, Johnston M, Abraham C, Lawton R, Parker D, and Walker A., (2005). Making psychological theory useful for implementing evidence-based practice: a consensus approach. *BMJ Quality & Safety*; 14:26-33.



If you would like to contribute to this work, please get in touch: louise.strickland@ouh.nhs.uk

More Information on the Data Driven BTRU

The BTRU is an NIHR funded Research Unit with over 40 researchers across multiple institutions and hospitals in the UK. Our unit brings together members of the public & patients with researchers and multi-disciplinary clinicians, with the common aim of improving transfusion care.

Our works aims to develop evidence-based standards for transfusion: supported by routine data and IT enabling more efficient benchmarking of practice & research iteratively driving cost-effective efforts to further quality improvements.

