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Tranexamic acid use in general surgery ¬- A low hanging fruit

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Background: Major intraoperative bleeding remains an important cause of surgical morbidity and mortality. Blood transfusion, though often life-saving, is a limited resource and carries risks including transfusion reactions, infection, and increased length of stay. Tranexamic acid (TXA) is a low-cost antifibrinolytic that has been shown to reduce bleeding and transfusion requirements in surgery. National guidance, including the Joint Royal Colleges Implementation Group and NICE QS138, recommends administration of 1 g TXA before incision and again after closure for all adult surgical patients at risk of moderate blood loss. Despite these recommendations, TXA use in general surgery is often inconsistent.

Methods: We conducted a retrospective audit of consecutive moderate-risk colorectal operations performed at [SMH and WGH] between 1 September and 31 November 2024. Data were obtained from electronic records. Outcomes included whether TXA was administered correctly (both timing and dose), estimated intraoperative blood loss, and postoperative requirement for blood transfusion or iron replacement. A total of 96 procedures were identified, of which 2 were excluded due to missing records.

Results: Correct TXA administration was documented in only 4/96 (4%) patients, while 13 patients received an incomplete or incorrect regimen. Intraoperative blood loss was generally minimal, although documentation was absent in 31% of cases. One quarter (25%) of patients required postoperative transfusion or iron therapy. Notably, among the 4 patients who received the correct TXA regimen, only 1 required a transfusion. In contrast, patients needing transfusion or iron were predominantly those who had not received TXA or had received it incorrectly.

Conclusion: This audit demonstrates marked underuse of TXA in general surgery, despite clear evidence and national recommendations. A checklist prompt at time of WHO surgical safety sign-in, combined with targeted education of anaesthetic and surgical teams, represents a low-cost and high-yield intervention. Optimising TXA use has the potential to reduce unnecessary transfusions, conserveblood resources, and improve perioperative outcomes.

Biography

Zhe Shean Lim, United Kingdom, is a dedicated general surgeon with a strong clinical interest in perioperative blood management and patient safety. He has actively contributed to research on tranexamic acid use in surgery, promoting evidence-based approaches to reduce bleeding and improve surgical outcomes.graphy.

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