

441 Intravenous Tranexamic Acid Given at Femoral Fragility Fracture Surgery Reduces Blood Transfusion Requirements Four-Fold

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Introduction: Tranexamic acid (TXA) is proven to reduce blood loss in several surgical fields, but its use in femoral fragility fracture (FFF) management is ill defined. This study examined the effect of intraoperative TXA on the rate of postoperative blood transfusion following FFF.

Method: A prospective non-randomized case-control study of 361 consecutive patients admitted to the study centre with FFFs over a 4-month period was performed. Intravenous TXA 1g was administered intraoperatively at the discretion of the operating team: 178 patients received TXA and 183 did not.

Results: Patients given TXA required fewer blood transfusions: 15/178 (8.4%) vs controls 58/183 (31.7%), ($p < 0.001$). Calculated blood loss (mean difference -222ml (-337 to -106, 95%CI), $p < 0.001$) and percentage drop in Hb (mean difference -4.3% (-6.3 to -2.3, 95%CI), $p < 0.001$) were significantly lower in the TXA group. The difference in CBL was greatest following intramedullary nail ($n = 49$: mean difference -394ml, $p = 0.030$) and DHS ($n = 101$, mean difference -216ml, $p = 0.032$). There was no significant difference in complication rates: venous thromboembolism TXA 2/178 vs control 1/182 ($p = 0.620$); MI/stroke/TIA 2/178 vs 0/182 ($p = 0.244$)

Conclusions: Intraoperative intravenous TXA significantly reduced calculated blood loss and blood transfusion requirements following

femoral fragility fracture surgery without increasing the rate of complications.