#1429 - Posters

The Effect Of Tranexamic Acid On Transfusion Rates, Length Of Hospital Stay In Total Joint Arthroplasty

Orthopaedics / Pelvis, Hip & Femur / Joint Replacement - Primary

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Introduction
Tranexamic acid (TXA) has been reported to improve outcomes in total joint replacement by reducing perioperative blood loss. We asked the question – would a universal protocol for the use of tranexamic acid in total joint replacement reduce transfusion rates and reduce length of stay in this patient population?
Objectives
Having introduced a protocol for the routine administration of tranexamic acid we wanted to determine any positive effects and document any negative effects from the introduction of this protocol.
Methods
With institutional ethics approval we retrospectively assessed the impact of a quality initiative to use a protocol for pre-operative TXA administration in patients undergoing total hip and knee arthroplasty between January 1, 2012 and April 30, 2014. Patients with known risk factors for thrombosis or seizure were excluded.
Results
We assessed a total of 2,173 patients and observed an overall increase in TXA utilization from 37% to 95%. This resulted in an overall reduction in red blood cell transfusion rate from 9% to 5% for all procedures ($p<0.05$). Universal TXA therapy resulted in an increase in postoperative haemoglobin and a decrease in length of stay. No increase in adverse thrombotic complications occurred. There was substantial cost saving in terms of reduced transfusions and a shorter length of stay.
Conclusions
Preoperative administration of TXA (20 mg/kg) undergoing total hip and knee arthroplasty resulted in a reduction in RBC transfusion, an increase in postoperative Hb and a reduced length of hospital stay . This was associated with substantial costs savings without evidence on an increase in adverse clinical outcomes . The impact was most pronounced for primary total hip arthroplasty. Broader application of this established therapy may lead to increased quality of care (reduced RBC transfusion and higher Hb) and cost savings across the hospital system.