

## Use of Tranexamic Acid in Trauma

Updated guidance November 2021

Tranexamic acid (TXA) has been utilised in the care of trauma patients with or at risk of major haemorrhage to promote clot formation and reduce mortality risk for a number of years following publication of the CRASH-2 trial in 2010<sup>1</sup>. This was followed by similar findings for Traumatic Brain Injuries in CRASH-3<sup>2</sup>

It has been given in 2 parts – an initial 1g bolus followed by a further 1g by infusion over 8 hours. It is recognised that the infusion is not always given or completed for multiple reasons.

The London Trauma System have also recognised that excess fibrinolysis (clot breakdown) does occur when only 1g has been given especially in those patients who require large volume transfusions.

A recent RCT of the use of TXA in the Traumatic Brain Injuries<sup>3</sup> compared the use of placebo against the standard regime as above vs a single 2g bolus. There was no increase in complications by giving the 2g as a bolus as well as a suggestion of improved benefit although this was not statistically significant.

The London Trauma System have therefore altered their guidance to give both doses of TXA (prehospital and ED) as boluses, or if no medications have been given prehospital to give 2g as a bolus on arrival to ED in those patients with or at risk of major haemorrhage. This has been similarly advised by the US Military in their Tactical Combat Casualty Care guidance<sup>4</sup>.

This change is considered a pragmatic and safe modification of practice that is supported by the Wessex Trauma Operational Delivery Network and should be adopted by the Major Trauma Centre and Trauma Units.

A flowchart summarising this change can be found overleaf.

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<sup>1</sup> CRASH-2 TRIAL COLLABORATORS. LANCET 2010; 376: 23–32. DOI: 10.1016/S0140-6736(10)60835-5

<sup>2</sup> THE CRASH-3 TRIAL COLLABORATORS. THE LANCET, 2019; DOI.ORG/10.1016/S1040-6736(19)32233-0

<sup>3</sup> JAMA. 2020 SEP 8;324(10):961-974. DOI: 10.1001/JAMA.2020.8958.

<sup>4</sup> J SPEC OPER MED. FALL 2020;20(3):36-43.

## USE OF TXA IN MAJOR TRAUMA IN WESSEX TRAUMA NETWORK - NOVEMBER 2021 UPDATE

