

Tranexamic Acid (TXA)

What is the evidence for the use of TXA?

CRASH2

- showed it reduced patient mortality from 16% to 14.5%.
- prevented 9% of all trauma deaths.
- NNT = 67.
- Treatment cost of saving a life approx £200.

What is the indication for TXA use?

- Adult trauma patients who you think are bleeding or at risk of significant bleeding (excludes isolated head injuries).
- As a rule of thumb consider TXA in any trauma patient who you group & save or cross match.
- Proof of injury is not necessary before starting treatment. Consider giving TXA prior to imaging for suspected injuries or if there is a risk of bleeding. Examples (but not limited to) are unstable pelvic fracture, 2 or more long bone fractures, intra-abdominal or intra-thoracic bleeding is suspected or when there is a risk of it occurring (eg significant blunt trauma or penetrating trauma).

How is tranexamic acid given?

- Check if it has been given pre-hospital
- 1 gram over 10 minutes, followed by 1 gram over 8 hours.
(TXA is packaged as vials of a clear liquid - the common UK formulation is 100mg/ml so normally 10mls (2 vials) is given for each dose).
- Give ten minute bolus dose by injecting 1 gram of tranexamic acid into a 100ml bag of saline and letting it run through over about 10-20 minutes (exact timing is not crucial but check it has not already been given pre-hospital).
- 8 hour infusion is given by injecting 1 gram into a 500ml bag of normal saline and giving by infusion pump.

How soon should it be given?

- The earlier the better. Consider preparing the initial dose on pre-alert from GWAS
- Should not be given after 3 hours

What about children?

- Consensus statement from RCPCH
https://www.tam.ac.uk/content/downloads/3100/121112_TXA%20evidence%20statement_final%20v2.pdf
- Loading Dose – 15mg/kg (max 1g) diluted in a convenient volume of Sodium Chloride 0.9% or Glucose 5% and given over 10 minutes
- Maintenance infusion – 2mg/kg/hour. Suggested dilution 500mg in 500ml of sodium chloride 0.9% or glucose 5% given at a rate of 2mls/kg/hour. For at least 8 hours or until bleeding stops.

Pitfalls?

TXA is not just for the massive transfusion “Code Red Group”. It is for ALL trauma patients thought to be bleeding or at risk of bleeding.

Tranexamic Acid

