Tranexamic acid for intracerebral haemorrhage: Results of TICH-2 day 365 follow up sub-study

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On behalf of the TICH-2 investigators

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### Speaker Disclosure

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- The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.
Intracerebral haemorrhage

- ICH Significant early mortality and morbidity
- Haematoma expansion occurs early and is associated with bad outcome\(^1\) so preventing haematoma expansion may improve outcome
- Tranexamic acid - anti-fibrinolytic – reduces death due to bleeding in trauma and post partum haemorrhage\(^3\) is affordable and available

**Optimal timing for outcome assessment after ICH unclear:**
- Recovery can sometimes take longer after the acute event
- Recent trials in ICH have shown continued improvement in outcome beyond 90 days
- iDEF suggested no benefit at day 90 but benefit at day 180\(^4\)

- Aim of day 365 sub-study was assess outcome one year after ICH in the TICH-2 population

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\(^1\) Demchuck et al. Lancet Neurol 2012  
\(^2\) Al Shahi-Salman et al. Cochrane 2018  
\(^3\) Gayet-Ageron et al. Lancet 2018  
\(^4\) Selim et al. Oral Presentation ISC Hawaii Feb 8 2019
Results: TICH-2 main study

• Primary outcome: shift analysis modified Rankin Scale at day 90 OLR with adjustment for minimization criteria

No benefit on functional outcome aOR 0.88 (95% CI 0.76-1.03)

• Pre-specified secondary outcomes

Significant reductions in early death and haematoma expansion

Early death (day 7) aOR 0.73 (95% CI 0.53 - 0.99)
Haematoma expansion aOR 0.80 (95% CI 0.66 - 0.98)
TXA appeared safe, reduced SAEs in TXA groups

[1] Sprigg et al Lancet May 2018
• Tranexamic acid had no significant effect on functional outcome one year after ICH

• Possible that survival benefit at one year may be due to chance

• Reduction in haematoma expansion was modest but in keeping with a biological haemostatic effect

• Further research is needed to determine if tranexamic acid (or other haemostatic agents) are effective at improving outcome after ICH

• Future studies could consider early death as a primary outcome measure but essential to ensure survival is not at the cost of severe disability

• Haemostatic therapy if effective only one component in the treatment of ICH – likely a ‘bundle of care’ including BP lowering is going to be necessary to improve outcomes

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