

What's new in Major Trauma?

June 2023

NICE Head Injury Guidelines - May 2023

TXA

For those with GCS 12 or below following HI who are not thought to have active extracranial bleeding, give a **2g** bolus of TXA (weight adjusted if under 16) within **2 hours** of injury. Imaging not needed prior to TXA. If you think they have active extra-cranial bleeding then just give the usual 1g bolus / 1 g infusion.

It'll be a little while before you see this translated into pre-hospital practice as the JRCALC guidelines will need to be updated.

Antiplatelets and imaging

Antiplatelets (except monotherapy aspirin) have been added to anti-coagulants as an indication for a CT scan in those with a head injury who don't tick any of the other boxes indicating the need for a scan. The wording is to "consider" a head CT scan in this group. It isn't mandatory and senior clinical judgement can be used.

Hypopituitarism

There is an increased emphasis on the need to consider hypopituitarism in patients with head injuries (even fairly minor ones) and that this may be a factor in continued symptoms seen in primary care (or on return to the ED). Symptoms can be pretty wide-ranging...

The full guideline is here:

<https://www.nice.org.uk/guidance/ng232/resources/head-injury-assessment-and-early-management-pdf-66143892774085>

A blog here:

<https://www.stemlynsblog.org/nice-head-injury-guidelines-2023-now-who-do-we-scan/>

CRYOSTAT-2 (<https://cryostat2.co.uk/#investigators>)

Whilst the full paper has not yet been published the results of this study (which Leeds MTC participated in) were presented last week at the Critical Care Reviews conference in Belfast. The study looked at the effectiveness of giving early cryoprecipitate (a mixture of fibrinogen and other clotting proteins extracted from blood donations) in patients being treated in hospital for massive haemorrhage.

The results suggest that giving early cryoprecipitate doesn't improve mortality and if given too early, or to patients with penetrating trauma may cause harm.

The Chief Investigator, Prof Karim Brohi's initial thoughts can be found here:

[Karim Brohi on Twitter: "CRYOSTAT2 results #ccr23: - Early *empiric* administration of high-dose cryoprecipitate to trauma patients activating the major haemorrhage protocol did not improve 28-day mortality.](#)

REBOA (<https://w3.abdn.ac.uk/hsru/reboa/public/public/index.cshtml#>)

The MTC also randomised patients to the UK-REBOA trial. This randomised patients thought to have significant torso haemorrhage to either usual care or the use of a device inserted via the femoral artery that allowed the inflation of a balloon within the aorta to prevent further bleeding.

The study found that adding REBOA to standard care in this setting *increased* the mortality of trauma patients at 90 days. <https://twitter.com/i/status/1668966517516431363>

The likely conclusion is that the process of attempting to use REBOA delayed getting the patient to theatre / IR for definitive haemorrhage control.

PATCH Trial (<https://twitter.com/PATCHTrial/status/1668933927593996289>)

This study - also presented at CCR - looked at the use of pre-hospital TXA in the Australian and NZ health care systems. Like CRASH-2 it found increased survival but also noted that there was no increase in those with a return to 'favourable functional outcome' at 6 months - in essence more patients survived but did so with significant disability.

Well worth following this link for a view on this from Prof Brohi, including the NEJM Editorial:

<https://twitter.com/karimbrohi/status/1669047832639070213>

EMERGENCY CT SCANS & CONTRAST

The Royal Colleges of Emergency Medicine and Radiology have produced a joint position statement (31.05.23) stating that for an **emergency** CT scan it is not necessary to wait for renal function results and that pre-existing renal disease, diabetes mellitus or medication such as metformin should not delay scanning. More info here:

https://res.cloudinary.com/studio-republic/images/v1685530101/Emergency_CT_Scans_Requiring_IV_Iodinated_Contrast_Agent/Emergency_CT_Scans_Requiring_IV_Iodinated_Contrast_Agent.pdf?_i=AA

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