Head injury (<24 hrs old) in adult ≥16 years old presenting to TU/LEH

CT Head indicated?

NO → In the absence of **concerning signs**** the risk of clinically important injury is low. → Admit or discharge as per NICE Head Injury guidelines → During observation escalate any concerns to a Senior doctor as per NICE Head Injury guidelines.

Yes → CT Head Normal → In the absence of **concerning signs**** the risk of clinically important injury is low.

Yes → CT head abnormal

ARE ANY OF THE FOLLOWING PRESENT?

GCS<13
Focal Neurology/abnormal pupils
Any extradural haemorrhage
Subdural Haemorrhage ≥8mm
Intraparenchymal haematoma/contusion ≥8mm
Diffuse SAH (IVH or circle of Willis/Sylvian fissure or blood in basal cisterns)
Penetrating injury
Depressed Skull fracture
On antiplatelets/anticoagulants (**ensure prompt reversal)**

NO → The following injuries require a minimum of 6 hours neuro-observation. They do not require routine neurosurgical referral

isolated simple linear closed undisplaced fracture
isolated SDH ≤4mm
isolated single intraparenchymal contusion/haematoma≤4mm
isolated Trace SAH (peripheral)

For all other patients and injuries or if there is any clinical concern refer to Neurosurgical registrar for advice

→ During observation escalate any concerns to a Senior doctor as per NICE Head Injury guidelines.

MTC transfer may be beneficial though care closer to home could also be appropriate. Involve the patient, NOK and/or any power of attorney in the decision.

Are there treatment escalation plans, and advanced directives to consider/discuss?

Is there pre-existing frailty to consider (e.g. *Clinical Frailty Score ≥)?

Discuss with ED Senior and Neurosurgery for further management and decision to transfer.

Does the patient have a traumatic brain injury assessed as an immediate threat to life or incompatible with good functional recovery AND where early limitation or withdrawal of therapy is being considered?

Consider Devastating Brain Injury pathway. Discuss with ED Senior/ICU and Neurosurgery for ongoing management

All other patients may be suitable for MTC transfer under automatic acceptance (agreed by the Senior ED physician).
The treating team may still decide that the patient should remain local.
The treating team are encouraged to discuss any case with the neurosurgeon where there are questions regarding suitability to transfer.

****CONCERNING SIGNS - discuss with neurosurgery**

- GCS ≤8
- CSF Leak
- Definite or suspected penetrating injury
- Seizure without full recovery
- Unexplained confusion persisting >4 hrs
- Deterioration in GCS
- Progressive focal neurology

*Clinical Frailty Scoring

- Not to be used in the following patients
  - <65 years
  - learning disabilities
  - Stable long term disabilities
- Score verified by 2 doctors (including 1 consultant)
- To score - Ask patients,carers, NOK, paramedics and care home staff regarding capability **2 weeks ago, not today**
- Patients acutely close to death or terminally ill score 9
- Patients with mild, moderate and severe dementia map to scores of 5, 6 and 7 respectively.

Brennan, Kerslake Apr 2023. Review May 2024