Head Injury - After Fall as Inpatient - Full Clinical Guideline

Reference No: CG-T/2013/112

Aim

To aid the management of head injury patients, in terms of accurate timely recordings of neurological observations and to ensure prompt interventions and actions occur where necessary.

Scope

All staff involved in the care of adult in-patients with head injuries and the recording of neurological observations.

References

NICE Clinical Guideline No. 176 June 2014 (updated June 2017). Head Injury. Triage, assessment, investigation and early management of head injury in infants, children and adults.

HEAD INJURY - AFTER FALL AS INPATIENT - NURSING GUIDANCE

Patient has sustained head injury in the ward area
Refer for medical review, may be NNP /ACP at night (see over page for medical and NNP /ACP guidance)

Patient admitted with history of a head injury

Record baseline observations including BM, neurological observations and NEWS
Observe for other injuries
Continue to record NEWS

Continue neurological observations ½ hourly for 2 hours for all patients then 1 hourly for 4 hours then 2 hourly for 4 hours until reviewed and GCS consistent and remains 15 or as per any other instructions

Give simple analgesia as prescribed by the doctor

If the patient's condition deteriorates at any stage report to NNP/ ACP / medical staff to obtain urgent review and restart ½ hourly

Changes requiring immediate review by medical staff

- Agitation, increased confusion or abnormal behaviour
- Severe or increasing headache or persistent vomiting
- New or evolving neurological symptoms or signs, such as pupil inequality or asymmetry of limb or facial movement
- Changes in other vital signs recordings

Complete IR1 form at the earliest opportunity by the person who witnessed the fall or was involved in the immediate post fall period in the case of an unwitnessed fall; and record the time and details in the patient's healthcare record

HEAD INJURY - AFTER FALL AS INPATIENT - MEDICAL AND NNP / ACP GUIDANCE

Injury suffered by patient with any high risk factor

- Therapeutic anticoagulation any agent eg warfarin, nicoumalone, heparins, dabigatran or rivaroxaban, antiplatelet agents
- Hereditary or acquired haemophilia or bleeding disorder
- Thrombocytopaenia (Platelets<50x10^9/l)
- Any cause coagulopathy INR>1.9
- GCS<13 at initial assessment
- GCS<15 2 hours after injury
- Clinical suspicion of skull fracture (esp. basal, open or depressed)
- Post traumatic seizure
- More than 1 vomiting episode

Yes →

- **CT scan**
- **Request immediately**

Aim:
Perform+report <1hr →

Consider:

Cervical spine involvement?
Arrange relevant investigations

No

Age >65
Fall >5stairs/1m
Amnesia
Any transient loss of consciousness.

Yes →

Request CT scan

Perform + report < 8 hrs →

No

No Scan
at this time

Continue observations
½ hourly for 2 hours, 1 hourly for 4 hours, 2 hourly until reviewed and GCS consistent and remains 15

CONTINUE OBSERVATIONS

Guidance regarding cessation of observation, delayed deterioration risk and re-imaging

There is a reasonable balance needing to be struck between the serious recognised risks of sleep deprivation (delirium, *increased* falls risk etc) from persistent close observation and the risks of deterioration from delayed or progressing intracranial bleeding. There is little firm guidance or evidence available.

To give some context, from the literature:

In the patients scanned within 1 hour of injury with confirmed intra-cranial bleeding (ICH), progression of bleeding is thought to occur in:

Less than 4% pts >24hrs post injury
Less than 1% pts >48hrs post injury

Delayed acute subdural haemorrhage (DASH) presenting clinically >24hrs, after *normal initial CT*, estimated <0.5% of all mild head injuries where lowest GCS >12. Failure to achieve pre-trauma GCS by 24hours should trigger re-discussion of imaging.

The only consistently identified risk factor for delayed presentation or bleed is demonstrable coagulopathy (INR>2.4), although other forms of coagulopathy should raise index of suspicion.

Delayed presentation, whilst rare, is often clinically insidious and a low threshold to discuss imaging should be maintained in the high risk groups.

Documentation Controls

Development of Guideline:	Head Injury Working Group
Consultation with:	Emergency Department Consultant, Chair of Trust Falls group
Approved By:	Falls Group - 15/2/18 Integrated Care Division - 21/2/18 Surgical Division - 6/3/18 Medical Division - 22/2/18
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