Worcestershire Acute Hospitals NHS Trust

The Assessment of Head and Neck Injury in Hospitalised/Ward Patients (Adults) Who Have Fallen

This guidance does not override the individual responsibility of health care professionals to make appropriate decisions according to the circumstances of the individual patient in consultation with the patient and/or carer. Health care professionals must be prepared to justify any deviation from this guidance.

Scope of Document

The guideline covers those patients (adults) who have fallen and injured their head or neck whilst hospitalised/on a ward and specifically which patients should have CT head scans and/or neurological observations. It does not cover children. It does not cover those patients who have been specifically admitted to hospital for ongoing care of an already diagnosed (significant) head injury or (significant) neck injury. The guideline does not cover the emergency management of those patients with moderate or severe traumatic brain injury. The guideline does not cover discharge, follow-up or patient advice.

Guidance Use

Nurses, Allied Health Professionals, Doctors and Advance Nurse Practitioners on all adult inpatient wards.

Lead Clinician(s)

Dr James France	Consultant Emergency Medicine
Dr Ruma Dutta	Consultant Older People
Approved by	Falls Steering Group, Clinical Governance Group
Approval Date	6th August 2019
Review Date The is the most current document and should be used until a revised version is in place	12th December 2024

Key amendments to this guideline

Date	Amendment	By:
05/2010	Approved by Falls Steering Group	
01/2011	Approved by Patient Safety and Quality Committee	
06/2011	Appendix 3 inserted (in line with recent NPSA alert); approved at Falls Steering Committee on 23/6/11	Ros Pickering
08/2012	Reviewed by Clinical Leads. Minor amendments to clinical and radiological assessment of cervical spine	James France
10/2014	Reviewed by Clinical Leads. Update due to NICE guidance 2014	James France
03/2017	Document extended for 12 months as per TMC paper.	TMC
01/2018	Reviewed by Clinical Leads. Update due to NICE guidance 2016	James France
04/2019	Cervical spine imaging updated; Option to not use 3 point fixation for cervical spine injuries	James France
06/2019	Inclusion of: Altered level of cognition as symptom, process to follow if neck injury is suspected and guidance re. Referral to Occupational Therapy (Reference made to Occupational Therapy guidelines)	Falls Steering Group
7th December 2022	Document extended for 6 months until the new NICE guidance in published next year.	James France, Alice Elderton
12th June 2024	Document extended for 6 months whilst review process is undertaken	Dr Susan Powell

Worcestershire Acute Hospitals NHS Trust

The Assessment of Head and Neck Injury in Hospitalised/Ward Patients (Adults) Who Have Fallen

Introduction

When a person falls, it is important that they are assessed and examined promptly to see if they are injured. This will help to inform decisions about safe handling and ensure that any injuries are treated in a timely manner. Checks for injury should be included in a post fall review that is followed for all patients (adults) who fall during a hospital stay. A post fall review should include frequency and duration of neurological observations for all patients where head injury has occurred or cannot be excluded (for example; unwitnessed falls) based on the NICE guidance a head injury is defined as any trauma to the head other than superficial injuries to the face.

It should be remembered that all patients who have had a head injury could have also sustained a neck injury- this needs to be formally assessed and excluded.

Rationale for Guidelines

The most important factor is to consider whether there has been any injury to the brain itself (as opposed to just the skin, scalp or skull bone) this requires a proper history and examination. A head injury should be considered if;

- A patient sustains an injury to their head or face even if the signs are minimal
- External bruising, swelling or laceration to the head or face is evident
- There is a new onset of symptoms suggestive of brain injury:
    - Vomiting, headache, altered consciousness, dizziness
    - Pain or tenderness of head/scalp
    - Anticoagulant therapy (but not DVT prophylaxis)
    - Altered level of cognition
- The mechanism of the fall suggests the risk of a head injury e.g. syncopal falls or falls where the person has not used limbs to break the fall
- A patient presents with unusual behaviour e.g. increased levels of agitation/ restlessness/listlessness (vigilance is required for patients with a cognitive impairment)
- A fall is unwitnessed

Head injury or traumatic brain injury (TBI) is defined by the patient's level of consciousness determined by the Glasgow Coma Scale (GCS):

- Minor brain injuries GCS 13-15
- Moderate brain injury GCS 9-12
- Severe brain injury GCS 3-8

The Glasgow Coma Scale and how to reliably measure it can be found in appendix one. The lower the GCS the worse the patient outcome is likely to be.

Patients who have fallen and hit their head whilst hospitalised/on a ward need appropriate assessment and investigation to allow early detection of potentially life threatening brain injuries. Hospitalised/ward patients who may be considered at higher risk of significant brain injury are those who are anticoagulated, known to have a high alcohol intake and the elderly/frail.

Patient Groups

All hospitalised/ward patient (adults) who have fallen and hit their head.

Exclusions

- Children
- Patients admitted specifically for ongoing management of an already diagnosed head injury
- Patients admitted specifically for ongoing management of an already diagnosed neck injury
- Emergency management of those patients with moderate or severe traumatic brain injury

Details of Guideline

Assessment of the Patient with a Head Injury:

- Immediate management
- History
- Examination
- Imaging
- Neurological Observations
- Criteria for referral to Neurosurgeons

Immediate Management

Immediately following the fall the patient should be rapidly assessed as per advanced life support guidelines to ensure that they have a patent AIRWAY, that they are BREATHING spontaneously and that a PULSE is present. A rapid neurological assessment should be made using the AVPU system (appendix 2). If the patient is unconscious (P or U on the AVPU scale) then a neck injury as well a head injury should be suspected and the patient should not be moved until the neck can be appropriately and adequately protected. In the absence of a patent airway, breathing or pulse or the patient remains unconscious dial 2222 and request the medical emergency team.

If the patient is conscious (A or V on the AVPU scale) and complaining of any new neck discomfort or altered sensation or weakness in the arms or legs then similarly the patient should not be moved until the neck can be appropriately and adequately protected. Dial 2222 and request the duty Trauma and Orthopaedic Registrar. See section regarding assessment of the cervical (neck) spine.

Starting high flow oxygen for a short period of time is unlikely to be harmful. Intravenous access maybe required.

History

Mechanism & Timing: Understanding the exact mechanism of injury will enable the determination of the forces involved and the likelihood of subsequent complications. Consider the possibility that a preceding medical condition (e.g. seizure, arrhythmia) may have been responsible for the fall. Document the time of injury accurately.

Loss of Consciousness/Amnesia: A period of unconsciousness implies a head injury of at least moderate severity. It can be difficult to establish exactly how long the period of unconsciousness lasted, particularly if there is associated amnesia. Document the length of amnesia before and after the injury.

Subsequent Symptoms: Ask specifically about the following;

- Headache
- Nausea and vomiting
- Limb weakness
- Paraesthesia (numbness or tingling sensation in the arms, legs or face)
- Diplopia (double vision)
- Rhinorrhorea (cerebrospinal fluid discharge from the nose)

- Otorrhorea (cerebrospinal fluid discharge from the ear)

Past Medical History: Document pre-existing illnesses and symptoms which may have played a role in causing the head injury (e.g. epilepsy, diabetes, arrhythmias, postural hypotension, poor mobility, alcoholism). Document those conditions which may make the consequences of the head injury more severe (e.g. bleeding disorders such as haemophilia or liver disease). Enquire about previous head injuries.

Drug History: Specifically document whether the patient is on any form of anticoagulant (e.g. warfarin or newer anticoagulants or therapeutic clexane or fondaparinux). Consider carefully whether any of the current medication may be responsible for the fall (e.g. psychotropics, anti-hypertensives, sedatives and hypnotics).

Tetanus Status: Enquire about tetanus in any patient with a laceration (cut) or open fracture.

Social History: Particularly relevant if patient is likely to be discharged within the next 24 hours- who will be at home with the patient.

Examination

Baseline Observations: The following must be completed on all hospitalised/ward patients (adults) who have sustained a head injury to calculate the NEWS score;

- BM
- Saturations
- Heart rate
- Blood pressure
- Respiratory rate
- Temperature

The GLASGOW COMA SCALE must be performed. A GCS of less than 13 should prompt urgent assessment by a doctor and critical care outreach team/out of hours nurse practitioner. It is appreciated that some patients 'normally' have a GCS of less than 15 (e.g. patients with dementia) however it is particularly important that the GCS and the trend in the GCS with time is interpreted in light of the patient's pre-existing conditions and severity (or mechanism) of the injury.

Document pupil size and reaction to light. A large unreactive pupil following a significant head injury should prompt urgent assessment by a doctor or critical care outreach team/out of hours nurse practitioner.

Neurological Examination: Examine the cranial nerves; look for cerebellar signs (past pointing, nystagmus, dysdiadochokinesia), examine the limbs to ensure symmetrical tone, power, reflexes and sensation. When examining the eyes ensure all movements are intact, pupil size and reflexes are normal. With specific reference to base of skull fractures look for and note the absence of:

- 'Panda eyes'- bilateral orbital bruising confined to the orbital margin
- Subconjunctival haemorrhage- no posterior margin of the haemorrhage seen
- Haemotympanum- blood behind the eardrum or in canal if drum ruptured
- Rhinorrhorea or otorrhorea- fluid mixtures containing relatively small amounts of blood and cerebrospinal fluid (CSF)

Skin**:** Assess head and face for bruises and lacerations.

Neck: see section below.

Other Injuries: The patient is unlikely to have an isolated head injury; screen for other significant injuries e.g. fractured Neck of femur (tender hip, decreased ROM), pubic rami

fracture (tender groin, decreased ROM), scaphoid fracture (tender anatomical snuff box), colles fracture (tender deformed distal radius), fractured or dislocated humerus (swollen tender shoulder) and chest wall injuries such as fractured ribs. Also look for bruises, lacerations and easily missed dislocations e.g. fingers.

A lying and standing blood pressure ought to be performed once the patient is clinically stable and immediate head (+/- neck) injury management and imaging has taken place.

Imaging

There is little or no role for the use of skull x-rays in patients with head injuries. CT scanning is used to identify and define brain injury and more importantly, associated intracranial haematomas amenable to surgical treatment. It should be remembered that patients with a GCS of less than 8 should be intubated and ventilated prior to CT scan. Patients who are combative or confused following their injury may also need to be intubated and ventilated to ensure that they will lie still during the CT scan. Before proceeding to CT scan the head a clear decision regarding the need for further cervical imaging (plain x-rays or CT scan) should be made so that both regions can scanned at the same time. A patient who is unconscious following a head injury will require both a CT scan of the head and the neck.

The following patients require a **CT SCAN WITHIN ONE HOUR of the REQUEST**;

- Suspected open or depressed skull fracture
- Any sign of base of skull fracture (haemotympanum, 'panda eyes', CSF leakage ears or nose)
- Post-traumatic seizure
- Focal neurological deficit
- >1 episode of vomiting
- GCS<15 if assessed more than 2 hours after injury
- GCS<13 when first assessed

The following patients require a **CT SCAN WITHIN EIGHT HOURS of the REQUEST;**

- Warfarin therapy (also consider for other anticoagulants e.g. Rivaroxaban, Fondaparinux, 'full dose' Clexane)
- Any amnesia or loss of consciousness PLUS a history of bleeding or clotting disorder (e.g. haemophilia)
- Any amnesia or loss of consciousness PLUS ≥ 65 years old
- Any amnesia or loss of consciousness PLUS fall > 1 metre, 5 stairs or similar dangerous mechanism
- Any amnesia or loss of consciousness PLUS amnesia for periods lasting more than 30 minutes before the injury

A provisional written radiology report should be made available within 1 hour of the scan being performed.

Coagulopathy or anticoagulant therapy does not include DVT prophylaxis. If the patient does not fulfil any of the above criteria for urgent or delayed CT scan then they DO NOT need CT imaging of their brain; however if concern persists, discuss with a senior colleague.

All patients who have significant head injuries should be discussed with the duty Trauma and Orthopaedic registrar as well as the Intensive Care Unit registrar. Any abnormal CT brain scan should be discussed with the duty Trauma and Orthopaedic registrar, who will take responsibility for further in-patient management and liaising with other specialties (including neurosurgery) that is required. The management of the head injury is the responsibility of the orthopaedic team and the management of the patient is that of the parent team unless they need critical care (then critical care will take over) or neurosurgery (in which case transfer to neuro unit managed by the orthopaedic team).

Neurological Observations

All patients who have sustained a head injury require neurological observations until a definitive management plan has been agreed. Perform and record observations on a half-hourly basis until GCS equals15.

When GCS equals 15, minimum frequency of observations (from time of injury) is:

- Half-hourly for two hours
- Then 1 hourly for 4 hours
- Then 2 hourly thereafter

If the patient deteriorates to GCS < 15 after initial 2 hour period, revert to half-hourly observations and follow original schedule above. Neurological observations must continue for 24 hours even if GCS equals 15 beforehand.

Minimum acceptable documented neurological observations:

- GCS
- Pupil size and reactivity (loss of reactivity/asymmetry of pupils may be a cause for concern)
- Limb movements
- Respiratory rate
- Heart rate (slowing down of rate with increased blood pressure may be a cause for concern)
- Blood pressure (increasing pressure with a slow heart rate may be a cause for concern)
- Temperature
- Oxygen saturations

The following conditions should prompt review by another nurse and if the changes are confirmed a doctor should be called to attend the patient within 30 minutes for active consideration of performing urgent CT head Scan:

- Agitation or abnormal behaviour.
- Drop of GCS by one point and lasted at least 30 minutes (especially if motor component).
- Any drop of GCS by 3 or more points in eye opening, verbal response scores or 2 or more points in the motor score.
- Severe or increasing headache development or persistent vomiting
- New or evolving neurological symptoms or signs, such as pupil inequality, asymmetry of limb or facial movement.

If the changes are not confirmed the observations should continue according to the schedule.

If GCS equal to 15 is not achieved after 24 hours of neurological observations but CT scan normal discuss with radiology regarding further imaging e.g. MRI.

Criteria for Referral to Neurosurgeons

The duty Trauma and Orthopaedic registrar should discuss the care of all patients with new, surgically significant abnormalities on imaging with a neurosurgeon. Regardless of imaging, other reasons for discussing a patient's care plan with a neurosurgeon include:

- Persisting coma (GCS ≤ 8) after initial resuscitation
- Unexplained confusion for more than 4 hours
- Deterioration in GCS after admission (particularly motor response)
- Progressive focal neurological signs
- Seizure without full recovery
- Definite or suspected penetrating injury

- Cerebrospinal fluid leak

Criteria for referral to Occupational Therapy
For those patients who have ongoing post concessional symptoms/post traumatic amnesia (PTA) consider referring to Occupational Therapy for further assessments. See policies at end of document.

Assessment of the Cervical Spine (Neck) In a Patient with a Head Injury
Any patient who has any injury above the clavicles should be considered at risk of a cervical spine injury. As with the head injury to fully appreciate the possible spine injury a thorough understanding of the mechanism of injury is essential e.g. the elderly patient falling forward and hitting their forehead is at risk of peg fractures. A patient with a potential cervical spine injury must be assessed for the possibility of a fracture (predominantly tenderness) and also the potential for spinal cord injury (neurological deficit).

On initial assessment following the fall cervical spine immobilisation should be used if any of the following factors are present:

- GCS < 15 on initial assessment
- Neck pain or tenderness
- Focal neurological deficit
- Paraesthesia in the arms or legs
- 65 years or over
- Dangerous mechanism (fall > 1 metre or 5 steps)
- Significant distracting injury
- Any other clinical suspicion of cervical spine injury

Full cervical spine immobilisation (also know as ‘three point fixation’) consists of:

- An appropriately fitted hard neck collar
- Sandbags/immobilisation blocks at the side of head and neck
- Head and collar taped or strapped to blocks which are in turn attached to a flat solid fixed surface

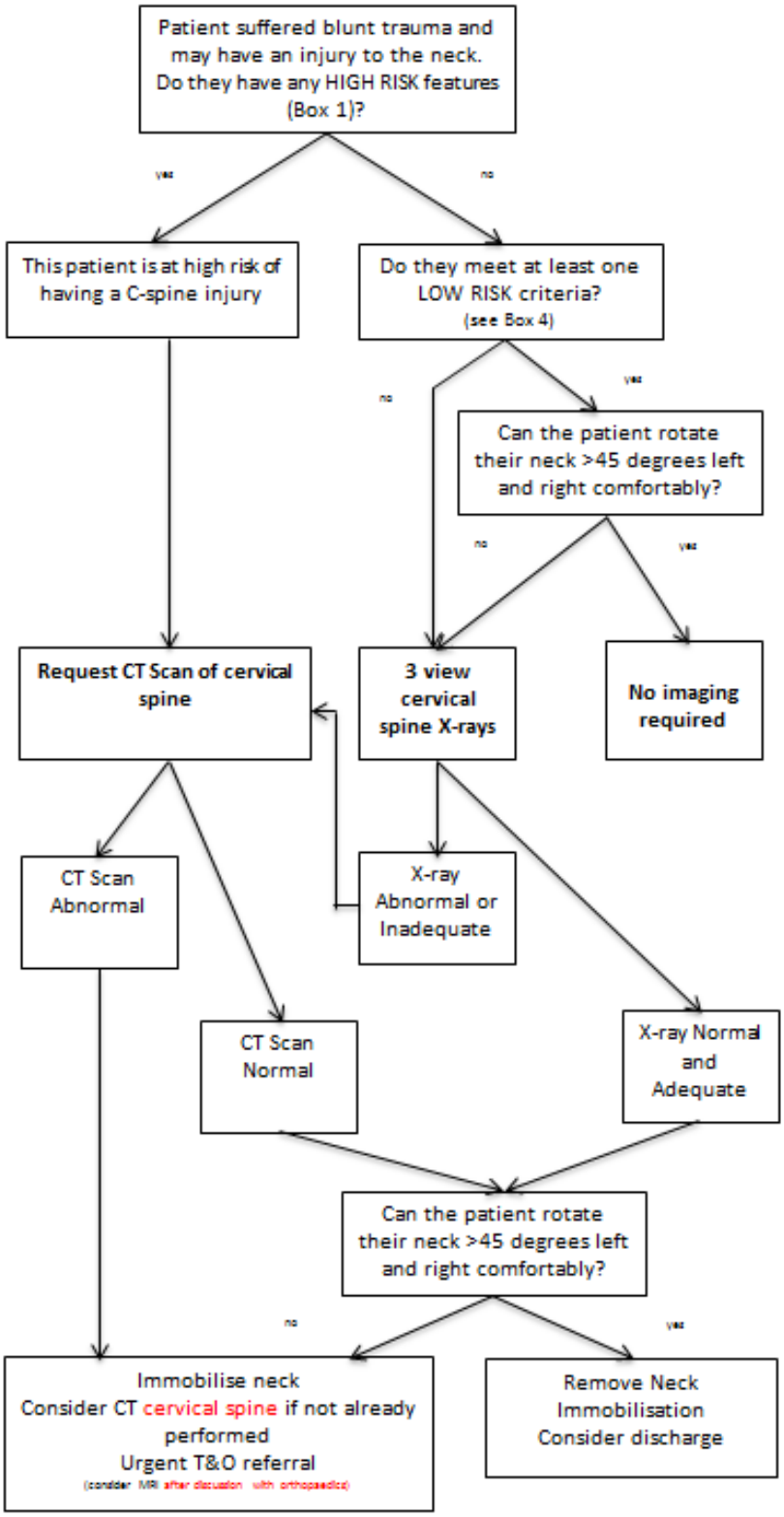
Once it has been determined that a patient requires cervical spine immobilisation, the patient will require assessment by the duty Trauma and Orthopaedic registrar to determine the need for any further imaging. Cervical spine immobilisation is uncomfortable and disorientating for the patient, a patient who is in ‘collar and blocks’ must be urgently (within 10 minutes) assessed by a doctor.

Cervical spine immobilisation may not be appropriate if the patient is agitated and actively resistant to this form of restraint- clinical judgement will need to be exercised. There is a risk that cervical spine injuries may be worsened in patients who are immobilised but actively resisting this form of restraint.

Imaging of the Cervical Spine (Neck)

Worcestershire Acute Hospitals NHS Trust

WANHST Emergency Department Adult Neck Trauma Imaging Guideline



Box 1 – High risk features

- GCS < 15/Intubated
- Age >65
- Focal neurological deficit
- Multi-regional trauma/abN vitals
- Urgent diagnostic requirement e.g. prior to surgery
- CT Head indicated
- Vertebral disease (see box 3)

- High risk mechanism (see box 2)

AND
Neck tenderness
OR
Visible supraclavicular injury
OR
Severely painful thoracic injury

*Injury >48hrs ago and re-attenders needs discussion with senior

Box 2 – HIGH Risk Mechanism

- Fall greater than 1m or 5 stairs
- Axial load
- >60mph collision (combined)
- Rollover
- Ejection from motor vehicle
- Accident involving recreational motorized vehicle.
- Bicycle collision
- Horse-riding accident

Box 3 – Vertebral Disease

- Ankylosing spondylitis
- Rheumatoid arthritis
- Previous neck surgery
- Spinal stenosis

Box 4 – LOW Risk Criteria

- Sitting comfortably in ED
- Been ambulatory since injury
- No midline tenderness
- Delayed onset of pain
- Simple rear end shunt (see box 5)

Box 5 - Simple rear end collision

- Car hit by another car only
- Car Not pushed into any other vehicles
- Not high speed impact

A lower threshold for requesting cervical spine imaging should be considered if the patient has an injury above the clavicle as well as either another significant ('distracting') injury or there is a reduced level of consciousness, confusion or intoxication due to drugs or alcohol.

A CT scan should be performed within 1 hour of the risk factor being identified. A provisional written radiology report should be made available within 1 hour of the scan being performed.

Cervical spine x-rays should be carried out within 1 hour of the risk factor being identified and reviewed by a clinician trained in their interpretation within 1 hour of being performed.

If all the following criteria are met and the patient has no indications the patient does not require any imaging of the cervical spine:

- Patient is comfortable in a sitting position
- Patient has been ambulatory at any time since injury
- Patient does not have midline cervical tenderness
- Patient is able to actively (perform movement by themselves) rotate their neck 45^0 to the left and right.

However if concern persists, discuss with a senior colleague.

All patients who develop new neurology or are suspected of having a cervical spine fracture following a fall and head injury whilst on a ward should be discussed with the duty Trauma and Orthopaedic registrar. The Trauma and Orthopaedic registrar will take responsibility for further in-patient management (including 'clearing the cervical spine') and any liaising with other specialties (including neurosurgery) that is required. Thus there will be shared care when patient transferred to trauma ward for operative care and advice only for none operative care.

Overview - Management of ward patients with a head injury following a fall

1. Exclude cardiac arrest.

2. Perform GCS and assess need for cervical spine protection.

3. GCS 13-15; ward nurse to call doctor and nurse practitioner to attend within 30-60 minutes to assess patient.

GCS 3-12 ward nurse to call doctor and critical care outreach/out of hours nurse practitioner to attend within 5-15 minutes to assess the patient.

Ward nurse to start neurological observations (half hourly for 2 hours, then 1 hourly for four hours, then 2 hourly thereafter for 24 hours), any deterioration in neurological observations inform doctor immediately. Ward nurse to complete full set of observations and incident form.

4. Assessing doctor/practitioner needs to address the following issues after patient stabilisation, history taken history and examination performed:

- Does the patient require haemorrhage control prior to formal wound closure?
- Does the patient require analgesia (avoid NSAID initially)?
- Does the patient require ongoing cervical spine immobilisation?
- Does the patient require cervical spine X-ray or CT scan?
- Does the patient require CT brain scan?
- Does the wound require cleaning and closure (sutures/glue/staples)?
- Has the patient been adequately examined to exclude other injuries?
- Do any other investigations need to be performed to determine 'the cause' of the fall?

5. If the assessing practitioner has concerns regarding any of the above or the interpretation of any investigations the duty Trauma and Orthopaedic Registrar should be contacted. He/she will be responsible for any ongoing in-patient management of the patient's head injury and for liaising with other specialties (including neurosurgery). The management of the head injury is the responsibility of the orthopaedic team and the management of the patient is that of the parent team unless they need critical care (then critical care will take over) or neurosurgery (in which case transfer to neuro unit managed by orthopaedic team).

The duty Trauma and Orthopaedic Registrar should be contacted in suspected cervical spine injuries. He/she will be responsible for ongoing in-patient management of cervical spine injuries including liaising with other specialties (including neurosurgery) leading to shared care when patient transferred to trauma ward for operative care and advice only for non-operative care

Related trust guidelines

- Trust Guidelines for the Reduction and Management of In-patient Falls WAHT-MED-005
- Post Fall Assessment Protocol for adult in-patient fallers WAHT-MED-012
- Operational guidelines for Occupational Therapy assessment and treatment of adults with traumatic head injury admitted/transferred or attending A&E at WRH/Alex WHAT-T+O-006
- Occupational Therapy for profound brain injury resulting in prolonged disorders of consciousness WHAT-oct-024

Monitoring Tool

Page/ Section of Key Document	Key control:	Checks to be carried out to confirm compliance with the policy:	How often the check will be carried out:	Responsible for carrying out the check:	Results of check reported to: *(Responsible for also ensuring actions are developed to address any areas of non-compliance)*	Frequency of reporting:
	WHAT?	**HOW?**	**WHEN?**	**WHO?**	**WHERE?**	**WHEN?**
	Audit the post fall suspected head injury management on inpatient fallers	Audit by FY doctors on 2 acute sites and nurses at Kidderminster	At least annually	Falls steering Group	Dr Dutta Falls Steering Group	After results collated

References

Wyatt JP et al Oxford Handbook of Accident and Emergency Medicine 2nd Ed Oxford University press 2005

National Institute for Health and Clinical Excellence Head injury: Triage, assessment, investigation and early management of head injury in children, young people and adults Issued: January 2014 NICE clinical guideline 176. www.guidance.nice.org.uk/cg176

Jevan P Neurological assessment 1 - Assessing level of consciousness. Nursing Times 2008; 104: 26-27 National Institute for Health and Clinical Excellence.

Spinal injury: assessment and initial management. February 2016 NICE guideline NG41. https://www.nice.org.uk/guidance/ng41

APPENDIX ONE

The Glasgow Coma Scale

Assessment Area	Score
Eye Opening (E)	
Spontaneous	4
To speech	3
To pain	2
None	1
Best Motor Response (M)	
Obeys commands	6
Localizes pain	5
Flexion / Withdraws to pain	4
Abnormal Flexion to pain	3
Abnormal Extension to pain	2
None (flaccid)	1
Verbal Response (V)	
Orientated	5
Confused conversation	4
Inappropriate words	3
Incomprehensible sounds	2
None	1

Notes on the Glasgow Coma Scale

This consists of 3 sections; a mark is placed against a score in each of the three sections. The total score for each section is added up; maximum 15 and minimum 3. The score in each section reflects the BEST response:

1. **Best eye opening response.**
2. **Best verbal response.** Judge on what the patient says when spoken to during nursing procedures or on eliciting painful stimuli as above (leave blank if intubated).
3. **Best motor response.** This is either to command or if this fails to painful stimuli. It is the best response of any of the four limbs.

Definitions

- **Localises**: purposeful movement towards painful stimuli
- **Withdraws from pain:** normal flexion response to painful stimuli
- **Flexion to pain:** abnormal flexion response (flexion at elbow and wrist) to pain
- **Extension to pain:** abnormal extension response (elbow extension and twisting inwards of the shoulder) to pain

Painful Stimulus

In patients with abnormal motor responses it is important that the painful stimulus used allows the clinician to differentiate between a patient's attempt to localise and that of abnormal flexion e.g. a 'sternal rub' as a painful stimuli may cause difficulty in interpreting a patient's response; are they localising or flexing? To avoid this doubt, the painful stimulus needs to be applied to the head e.g. supraorbital notch; localisation of this painful stimulus will involve elbow flexion and shoulder extension whereas an 'abnormal flexion' response will involve elbow flexion and possibly wrist flexion. Withdrawal from a painful stimulus can be confirmed by exerting pressure on a finger nail bed.

APPENDIX 2

AVPU Scale

The AVPU scale is a quick and easy scale to assess the level of consciousness during a rapid ABCDE survey:

- Alert
- Responds to Voice
- Responds to Pain
- Unresponsive

Assess the level of consciousness using the AVPU scale; if the patient is fully awake and talking to you, they are an **A** (alert). If they respond but appear confused, try to establish whether this is a new or a long-standing problem; causes of recent onset confusion include neurological pathology and hypoxia.

If the patient is not fully awake, check if they respond to your voice, for example by opening eyes, speaking or moving; if they do, they are a **V** (responds to voice).

If the patient does not respond to voice, administer a painful stimulus such as a squeeze on the trapezium and check for a response (eye opening, verbal such as moaning, or movement); if there is a response, they are **P** (responds to pain). Those who do not respond are a **U** (unresponsive).

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APPENDIX 3

WARD FLOW CHART

In-patient Falls: What to do immediately when a Head Injury is Suspected Immediately

Perform rapid assessment of ABC/AVPU
Assess need for cervical spine protection
Document GCS and NEWS

WARD NURSE DUTIES

Neurological observations: initial

- Half-hourly for 2 hours
- Then hourly for 4 hours
- Then 2 hourly untill 24 hours

IF: GCS 13-15: 30-60 minute review by Doctor/OOH NP
IF: GCS 3-12: immediate (within 15 minutes) review by Doctor/OOH NP/CCO

IF: Decline in GCS, vomiting, headache, agitation, behavioural change or new neurological features need a review by Doctor/OOH NP

Complete: Nursing/Therapy Post Fall Assessment and Intervention Plan
Datix incident form
Repeat Falls Prevention Assessment and Intervention Plan

ATTENDING Doctor/PRACTITIONER**/ DOCTOR DUTIES**

- Ensure patient is stable
- Take history and perform examination
- Management Decisions

- Need for cervical spine immobilisation
- Need to stop ongoing haemorrhage
- Need for analgesia (avoid NSAID initially)
- Need for imaging (head, neck and any other injury)
- Need for other investigations related to 'cause of fall'
- Wound cleaning and closure

After a fall, the following suggest the need for a CT scan:

- Witnessed head injury or unwitnessed fall with coagulopathy (including therapeutic)
- Onset of new symptoms suggestive of brain injury such as vomiting more than once, altered consciousness, seizure, focal neurology, amnesia of events > 30mins before fall

Contribution List

Key individuals involved in developing the document

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Ros Pickering	Falls and Bone Health Steering Group

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Philip Goode	Medical Nurse Practitioner
Lynne Mazzocchi	Acting Lead Nurse Elective Division
Ann Carey	Lead Nurse Emergency Division

Circulated to the following CDs/Heads of dept for comments from their directorates / departments

Name	Directorate / Department
A&E Consultants	
Orthopaedic Consultants	
Radiology Consultants	
Surgical Nurse Practitioners	
Night Nurse Practitioners	
Critical Care Outreach Team	
All Consultants	
Matrons	

Circulated to the chair of the following committees / groups for comments

Name	Committee / group
Ros Pickering	Falls and Bone Health Steering Group
Helen Blanchard	Patient Safety and Quality Committee

Supporting Document 1 - Equality Impact Assessment Tool

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

		Yes/No	Comments
1.	**Does the policy/guidance affect one group less or more favourably than another on the basis of:**		
	Age	y	Elderly more likely to fall
	Disability	n	
	Gender reassignment	n	
	Marriage and civil partnership	n	
	Pregnancy and maternity	n	
	Race	n	
	Religion or belief	n	
	Sex	n	
	Sexual orientation		
2.	**Is there any evidence that some groups are affected differently?**	y	See above
3.	**If you have identified potential discrimination, are any exceptions valid, legal and/or justifiable?**	y	All justifiable
4.	**Is the impact of the policy/guidance likely to be negative?**	n	
5.	**If so can the impact be avoided?**	n/a	
6.	**What alternatives are there to achieving the policy/guidance without the impact?**	n/a	
7.	**Can we reduce the impact by taking different action?**	n/a	

If you have identified a potential discriminatory impact of this key document, please refer it to Human Resources, together with any suggestions as to the action required to avoid/reduce this impact.

For advice in respect of answering the above questions, please contact Human Resources.

Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	n
2.	Does the implementation of this document require additional revenue	Yes – number CT scans will increase
3.	Does the implementation of this document require additional manpower	n
4.	Does the implementation of this document release any manpower costs through a change in practice	n
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	n
	Other comments:	

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval