GDL01
Clinical guideline for the frequency of Neurological Observation recording in adults

1.0 Procedure Statement

- The purpose of this guideline is to ensure registered healthcare practitioners understand the required frequency of neurological observation required, dependant on clinical indication.
- To understand the need for timely and appropriate escalation in the event of any neurological deterioration.
- Neurological observations can only be completed by registered healthcare practitioners. Student nurses and Trainee nursing associates must only perform this task under direct supervision of a Registered Nurse.
- This guideline does not extend to ICU patients who may be managed and assessed differently to those within a ward / admission setting.

In adhering to this Policy, all applicable aspects of the Conflicts of Interest Policy must be considered and addressed. In case of any inconsistency, the Conflict-of-Interest Policy is to be considered the primary and overriding Policy.

2.0 Definitions:

2.1 Neurological Observation

Neurological observations help establish the neurological status of our patients. Neurological Observations assess five critical areas:

- Cardiovascular function
- Level of consciousness
- Sensory function
- Pupillary activity
- Motor function

Therefore, Neurological Observations **MUST** include the following:

- A full set of NEWS2 observations
- ACVPU assessment (alert, new confusion, voice, pain, unresponsive)
- GCS (Glasgow coma scale)
- Pupillary responses
- Assessment of Limb power

All elements of this comprehensive assessment must be completed within the same time

interval. (NNBG 2017) Completing neurological observations may improve patient outcomes through early detection and escalation of neurological deterioration.

2.2 Stroke

Rapidly developing clinical signs, of presumed vascular origin, of focal (or global) disturbance of cerebral function lasting more than 24 hours which can lead to death.

2.3 Thrombolysis

Is a treatment with a thrombolytic agent, usually administered intravenously, in order to dissolve an occlusive thrombus and to allow recanalisation of a blocked blood vessel.

2.4 Thrombectomy

Is a treatment to remove the occlusive thrombus blocking a blood vessel endovascularly, usually via an arterial puncture.

2.5 Intracerebral Haemorrhage (ICH)

A sudden bleeding within the brain tissue itself resulting in a sudden onset of neurological deficit.

2.6 Subarachnoid Haemorrhage (SAH)

A bleed within the subarachnoid space, which is the area between the brain and the surrounding tissue covering the brain (arachnoid mater), resulting in often sudden onset of neurological deficit.

3.0 Indications for Neurological observation recording:

Neurological observations must be completed and recorded for the following patients:

- Those with a suspected or confirmed neurological condition including Cerebral Vascular Accident (CVA/Stroke) or Intracerebral /Subarachnoid Haemorrhage.
- Those presenting to hospital following sustaining a head injury.
- Those who are acutely unwell where the cause is not apparent.
- Those who have an unexplained loss or reduction in consciousness
- Those post first seizure
- Post thrombolysis /thrombectomy (Stroke patients only)
- Those who sustain a head injury whilst in hospital.
- Following a fall resulting in the patient hitting or suspected to have hit their head.
- Those who sustain a head injury by any other means whilst an inpatient.
- Post Neurological surgery

4.0 Frequency of Neurological Observations for patients with:

- **Acute Primary Intracerebral haemorrhage with systolic blood pressure (SBP) ≥ 150**
- **Any other Ischaemic stroke / Intra cerebral haemorrhage or deteriorating patients as directed by medical team**
- **Post Thrombolysis /Thrombectomy for Stroke patients only**

  - **¼ Hourly for 2 hours**
  - **½ Hourly for 6 hours**
  - **1 Hourly for 24 hours**
  - **4 Hourly for 72 hours**
  - **Review**

During this time If there is any deterioration in the patient's condition, including level of consciousness, pupil reaction, limb power or cardiovascular observation you must seek **URGENT** medical review and revert to ½ hourly neurological observations as a minimum, or ¼ hourly, if still within the first 2 hours post thrombolysis.

Under no circumstances should Neurological observations be omitted because the patient is asleep.

4.1 Frequency of Neurological Observations for patients:

- **Admitted with Head Injury**
- **With a sudden deterioration in their level of consciousness**
- **Who are unconscious on arrival to hospital**
- **Post first seizure**

  - **½ Hourly for 2 hours**
  - **1 Hourly for 4 Hours**
  - **2 Hourly for 6 Hours**
  - **4 hourly for 12 hours**
  - **Review**

During this time If there is any deterioration in the patient's condition, including level of consciousness, pupil reaction, limb power or cardiovascular observation you must revert to ½ hourly neurological observations and seek URGENT medical review.

Patients should be reviewed if no change in condition at 12 hours to ascertain if neurological observations are still indicated – this decision must be documented in the medical notes.

Under no circumstances should Neurological observations be omitted because the patient is asleep.

5.0 Indications for Neurological Observations for patients who fall in hospital.

- If a head injury is witnessed, reported, suspected, or cannot be excluded.
- There is any new onset of neurological symptoms or deterioration.
- The patient complains of pain / tenderness to the head
- Extra consideration should be given to patients currently prescribed anticoagulant medication at the time of the fall.

5.1 Frequency of Neurological Observations Post Fall

- **½ Hourly for 2 hours**
- **1 Hourly for 4 Hours**
- **2 Hourly for 6 Hours**
- **Review**

Post fall Neurological Observations must be completed for at least **12 hours** and at the above intervals as a minimum:
During this time If there is any deterioration in the patient's condition including level of consciousness, pupil reaction, limb power, cardiovascular observation you must revert to ½ hourly neurological observation and seek **URGENT** medical review.

Patients must be reviewed if no change in condition at 12 hours to ascertain if neurological observations are still indicated – this decision must be documented in the medical notes.

Under no circumstances should Neurological observations be omitted because the patient is asleep

6.0 Limitations / Considerations of Neurological Observations

- Subjective difference of observations between staff
- Dysarthria and Dysphagia
- Language barrier
- Hearing difficulties
- Learning Disabilities
- Difference in stimuli used
- Pre-existing medical conditions e.g. Dementia / Parkinson's Disease / CVA
- New or pre-existing ophthalmic conditions.

7.0 Accountabilities

7.1 Medical roles and responsibilities.

For those patients requiring Neurological Observations:

- Ongoing review of these patients developing management plans and arranging investigations
- Document the frequency of Neurological Observations required and include the length of time that the observations must continue if deviates from the guidance laid out in this procedure.
- Appropriate response to changes or deterioration in Neurological observations as below:

  - within **10mins** in the emergency department
  - within **30 mins** in other wards and departments

- Provide a frequency of observations accordingly on review of the patient
- Liaise with the registered healthcare practitioner caring for the patient and the Nurse in charge with regards to any further requirements in relation to the neurological observation of the patient.
- Appropriate escalation / referral to senior or specialist teams.

7.2 Registered Nurse / Practitioners responsibilities:

- Ensure that they have the appropriate knowledge and skills to perform Neurological observations safely and competently. This will be reviewed if the practitioner is involved in an incident where an error has occurred in recording neurological observations, or if there has been a significant change in guidance around the way in which neurological observations are performed.
- The registered practitioner is responsible for the completion of a full set of neurological observations and specifically GCS as indicated
- Performing, recording, documenting of timely neurological observations as per frequency indicates.
- Communication to colleagues at handover, on any change in clinical condition or on any change of neurological observations.
- Once every 12 hour shift another registered practitioner (competent in neurological observation) will routinely perform an independent set of neurological observations (fresh eyes review) on the patient to ensure consistency. This independent check must also be made when there is a change in clinical condition.
- If a patient deteriorates the registered practitioner will escalate to the medical team immediately and continue to perform neurological observations ½ hourly as a minimum until medical review and plan of care has been agreed.
- To escalate to senior medical staff if the patient has still not been reviewed within 30 minutes of initial request for review.

- All escalation of care must be clearly documented in the patient's records.

8.0 Equipment Required

Standard Observation monitoring equipment

Pen Torch

9.0 Training

All registered healthcare staff monitoring and recording neurological observations must ensure that they have the required knowledge and skills to perform neurological observations and understand the significance of the scores in relation to:

A) Any change in neurological observations

B) The clinical assessment that is required regarding that change.

Guidance on how to perform neurological observations can be accessed at; https://clinicalskills.net

Clinical responders to any patient with deteriorating neurological observations must have the appropriate skills and competence in the assessment and clinical management of acute illness.

10.0 Clinical incident reporting and management.

All incidents or near misses must be reported via the Trust incident reporting system, also informing the appropriate management team. Significant patient safety events should be escalated to senior management and /or the Assurance Team as appropriate.

11.0 Financial Risk Assessment

1	Does the implementation of this document require any additional Capital resources	No
2	Does the implementation of this document require additional revenue resources	No
3	Does the implementation of this document require additional manpower	No
4	Does the implementation of this document release any manpower costs through a change in practice	No
5	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programs or allocated training times for staff.	No
	Other comments	

12.0 Equality Impact Assessment

An initial equality analysis has been carried out and it indicates that there is no likely adverse impact in relation to Personal Protected Characteristics as defined by the Equality Act 2010.

13.0 Maintenance

This guideline will be maintained by the nursing quality team and review will be overseen by the Chief Nursing Officer /Deputy Chief Nursing Officer.
The approving committee will be the falls prevention /steering group.

14.0 Communication and Training

Communication of this guideline will be via trust and nursing quality communication mechanisms.

Training on the process for correct recording of neurological observations is available on clinical skills.net https://www.clinicalskills.net/

Mandatory neurological observations training for registered nurses is accessible in My Focus through My Academy.

15.0 Audit Process

Criterion	Lead	Monitoring method	Frequency	Evaluation
Implementation of a guideline to guide staff in the appropriate frequency of Neurological observation completion depending on clinical need and circumstance	Ruth Spedding	Trust communications and communications via quality team mechanisms	Weekly for two weeks and monthly for 4 months via quality team .	Quality team

16.0 References - Legal, professional, or national guidelines

https://www.nice.org.uk/guidance/ng232
https://www.nice.org.uk/guidance/mib205/resources/national-early-warning-score- systems-that-alert-to-deteriorating-adult-patients-in-hospital-pdf-2285965392761797
http://www.bann.org.uk/nnbg/

17.0 Appendices

Appendix 1 (a) Paper Neurological observation chart (pilot mode currently)
Appendix 1 (b) Neurological observation frequency guide

Part A - Document Control

Procedure/ Guidelines number and version V2.0	**Title of Procedure/Guidelines** Clinical guideline for the frequency of Neurological Observation recording in adults	**Status:** Final		**Author:** Senior Sister Quality Team **For Trust-wide Procedures and Guidelines Chief Officer Sponsor:** Chief Nursing Officer
Version / Amendment History	Version	Date	Author	Reason
	1.0	DEC 21	Ruth Spedding	New Guidance
	1.1	May 2022	Ruth Spedding	Inclusion of section 15.0 – Audit Process
	1.2	June 2025	Ruth Spedding	Extension
	2.0	Sept. 2025	Ruth Spedding	Routine 3 yearly review
Intended Recipients: All registered Healthcare Professionals who undertake the recording of neurological observations in patients for the indications outlined within the guidance.				
Consultation Group / Role Titles and Date: Neurological medical leads Neurological nursing leads Matrons Falls prevention committee members				
Name and date of group where reviewed		Safer Mobility Group - July 23rd 2025 Trust Policy Group – September 2025		
Name and date of final approval committee (if trust-wide document)/ Directorate or other locally approved committee (if local document)		Trust Policy Group – September 2025		
Date of Procedure/Guidelines issue		September 2025		
Review Date and		September 2028 - 3 Years		

Training and Dissemination:
Communication of this guideline will be via trust and nursing quality communication mechanisms.

Publishing Requirements: Can this document be published on the Trust's public page:

Yes

To be read in conjunction with

http://trustnet.xrwh.nhs.uk/strategies-policies/clinical-policies-procedures-guidelines/clinical-practice-policies/cp61/

OP10 Risk Management and Patient Safety Reporting Policy
http://intranet.xrwh.nhs.uk/pdf/policies/AdultMedicalGuidelines/CP50_Neurology.pdf

http://intranet.xrwh.nhs.uk/pdf/policies/AdultMedicalGuidelines/DPROC_Stroke1.Pdf

http://intranet.xrwh.nhs.uk/pdf/policies/AdultMedicalGuidelines/Glasgow_Coma_Scale.pdf

http://intranet.xrwh.nhs.uk/pdf/policies/AdultMedicalGuidelines/sah_pathway.pdf

http://intranet.xrwh.nhs.uk/pdf/policies/AdultMedicalGuidelines/DPROC_Stroke2.pdf

http://intranet.xrwh.nhs.uk/pdf/policies/AdultMedicalGuidelines/tia guideline.pdf

Initial Equality Impact Assessment: Completed Yes
Full Equality Impact assessment (as required): Completed Yes

Contact for Review **Nursing Quality Team**	Ruth Spedding. Senior Sister
Monitoring arrangements	Local

Document summary/key issues covered.

To ensure appropriate monitoring of Neurological Observations is carried out dependent on the presenting indication and clinical need.

To ensure timely and appropriate clinical management of patients takes place where any neurological change or abnormality is detected.

To ensure timely and appropriate escalation in the event of any neurological deterioration.

Key words for intranet searching purposes	Neurological Observations Neuro obs

A

The Royal Wolverhampton NHS Trust

Appendix 1a

Neurological Observations

NHS
The Royal Wolverhampton
NHS Trust

Patient Name:...NHS Number:...............................Unit number:...............................

Identify frequency: 4 hourly, 6 hourly, 12 hourly, other please state		
Date		
Time		

Right Pupil	Size / Reaction		+ reacts - no reaction c - eye closed
Left Pupil	Size / Reaction		Pupil Scale (mm)

GLASGOW COMA SCALE	Eyes open	Spontaneously	4		C = Eyes closed by swelling
		To speech	3		
		To pain	2		
		None	1		
	Best verbal response	Orientated	5		P = Prothesis
		Confused	4		
		Inappropriate Words	3		
		Incomprehensible sounds	2		Endotracheal tube or tracheostomy = T
		None	1		
	Best motor response	Obey commands	6		
		Localise pain	5		
		Flexion to pain	4		
		Abnormal flexion	3		Usually record the best arrived response
		Extension to pain	2		
		None	1		

Pupil scale (mm): 1 2 3 4 5 6 7 8

LIMB MOVEMENT	ARMS	Normal power		
		Mild weakness		
		Severe weakness		Record right (R) and left (L) separately if there is a difference between the two sides.
		Spastic flexion		
		Extension		
		No response		
	LEGS	Normal power		Usually record best arm response
		Mild weakness		
		Severe weakness		
		Extension		
		No response		

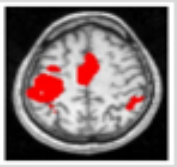
TOTAL CGS		
Limb		If X is documented explanation required in medical notes
Circulation		
Sensation		
Movement		
Initials		

MI_8786614_16.08.21_v_1

The Royal Wolverhampton NHS
NHS Trust

Appendix 1b

FREQUENCY OF NEUROLOGICAL OBSERVATIONS FOR:



- Acute Primary Intracerebral haemorrhage with SBP ≥ 150.
- Any other Ischaemic stroke / Intra cerebral haemorrhage or deteriorating patients as directed by medical team.
- Post Thrombolysis /Thrombectomy

1/4 hourly for 2 hours → 1/2 hourly for 6 hours → 1 hourly for 24 hours → 4 hourly for 72 hours → REVIEW

During this time If there is any deterioration in the patient's condition, including level of consciousness, pupil reaction, limb power or cardiovascular observations you must seek **URGENT** medical review and revert to ½ hourly neurological observations as a minimum, or ¼ hourly, if still within the first 2 hours post thrombolysis.

FREQUENCY OF NEUROLOGICAL OBSERVATIONS FOR:

- Patients admitted with Head Injury
- Patients with a sudden deterioration in their level of consciousness
- Patients who are unconscious on arrival to hospital

1/2 hourly for 2 hours → 1 hourly for 4 hours → 2 hourly for 6 hours → 4 hourly for 12 hours → REVIEW

During this time If there is any deterioration in the patient's condition, including level of consciousness, pupil reaction, limb power or cardiovascular observations you must revert to ½ hourly neurological observations and seek **URGENT** medical review.

FREQUENCY OF NEUROLOGICAL OBSERVATIONS FOR:

- A fall where a head injury is witnessed, reported, suspected, or cannot be excluded.
- The patient complains of pain / tenderness to the head
- There is any new onset of neurological symptoms or deterioration following a fall.
- Extra consideration should be given to patients currently prescribed anticoagulant medication at the time of the fall.

1/2 hourly for 2 hours → 1 hourly for 4 hours → 2 hourly for 6 hours → REVIEW

During this time If there is any deterioration in the patient's condition, including level of consciousness, pupil reaction, limb power or cardiovascular observations you must revert to ½ hourly neurological observations and seek **URGENT** medical review.

UNDER NO CIRCUMSTANCES SHOULD NEUROLOGICAL OBSERVATIONS BE OMITTED BECAUSE THE PATIENT IS ASLEEP!

Remember:

COMMUNICATE: Frequency of observations and changes in neurological observation on handover / safety briefings.

ESCALATE: Any concerns/ deterioration to medical teams immediately.

FRESH EYES REVIEW: During a 12hr shift, and on any change in condition /deterioration a different registered health care professional is to perform a full set of neurological observations to ensure consistency.