Acute Stroke Nursing Guideline

Developed by the Stroke Nurse Working Group – National Stroke Network July 2018

Acute Stroke Nursing Care
❖ Excludes thrombolysis care – see local guideline

NB: This document is for guidance only and should be used in conjunction with individual patient assessment and documented clinical reasoning. Be aware local variances may apply.

Assessment	Step	Action points
Vital Signs	Monitor 2-4 hourly for 24 hours (Day 1) and then 4 hourly for 48 hours up to and including 72 hours (Day 2-3).	Use local Early Warning Score (EWS) as a primary measure and then supplement with additional guidance below.
Respiratory Assessment	Respiratory assessment 2-4 hourly for 48 hours: Position patient to facilitate optimal ventilation. Assess and document: - RR, Spo2 % - Rate, quality and depth - Work of breathing - Pooling of secretions - Ineffective cough - Wet and gurgling voice	▪ Supplementary oxygen not required unless oxygen saturation of ≤95% or individualised parameter are recorded ▪ Oral suction as required ▪ Change position two hourly ▪ Refer to Physiotherapist **Medical review**: If respiratory distress / tachypnoea and /or infection is suspected.
Neurological Assessment	**Neurological assessment 2 hourly for 24 hours (Day 1) then 4 hourly for 48 hours (Day 2 &3):** Record neurological observations: (e.g. Glasgow Coma Scale, pupillary reaction and size, limb power) **Assess and document:** - Signs of deterioration - Decreased level of consciousness - Increasing muscle weakness or hemiparesis - Sudden hemiplegia - Restlessness	**Medical review:** **Alert medical team immediately if:** **1. Change in level of consciousness with GCS drop of GSC >2** **2. Any worsening of focal neurological deficit** **3. Report of severe headache** **4. New nausea / vomiting/ hiccups** **5. Increase of ≥4 points in NIHSS score** **6. Seek assistance from senior nursing staff** **Maintain close observation until medical review.**

Assessment	Step	Action points
Cardiovascular Observations		
Blood pressure	**Monitor 2 hourly for 24 hours (Day 1), then 4 hourly for 48 hours (Day 2 & 3) then review.** **Assess and document:** - blood pressure - hypotension and hypertension Monitor trend and fluctuations from the individual parameters' set. NB - **When recording BP for the first time,** if able check BP when the patient is in both lying and sitting positions.	If hypotensive: - lie flat - complete ECG - assess hydration status, and - correct dehydration **Medical review** **If hypotensive:** Alert medical team immediately if Systolic BP <100. Consider IV fluid bolus (use Normal Saline; Dextrose Saline **NOT** recommended in acute stroke). Review medications. **If hypertensive:** ***Ischaemic*** *non-thrombolysed*: Review BP >210/110mmhg should be cautiously reduced by no more than 20% over first 24 hours *Pre and Post-thrombolysis*: Review BP >185/110mmHg in first 24hours (see Thrombolysis protocol for detailed BP management guidelines) ***ICH:*** Review BP >160/100mmHg.
Arrhythmias	**Monitor for arrhythmia for minimum of 24 hours.** **Assess and document:** - Document cardiac rhythm and haemodynamic status - Report any arrhythmias detected as per local policy.	▪ Cardiac telemetry for the first 24 hours after stroke or daily ECG if no telemetry available for first 3 days of ischaemic stroke ▪ Review telemetry after 24 hours if no arrhythmias detected **Medical review:** If arrhythmias detected and /or decrease in haemodynamic status and/or patient symptomatic.
Temperature	**Monitor temperature 4-6 hourly for first 72 hours.** **Assess and document:** - Pyrexia of ≥37.5º	▪ Treat with antipyretic agents and other cooling measures if febrile ≥37.5º **Medical review:** If temperature >38.0 º. Obtain blood cultures. If pathological aetiology suspected, initiate appropriate investigations.
Blood sugar level	**Baseline glucose, then monitor blood sugar twice daily for 72 hours. Assess and document findings.**	▪ Discontinue if BSL remains within normal ranges. Diabetic patients may need to continue monitoring Apply clinical rationale **Medical review:** If blood glucose level >10mmols or < 4mmols.
Dysphagia screening	**NBM until dysphagia screen completed.** **Complete nursing dysphagia screen within 4hrs of admission.** **Assess and document:** - Dysphagia screen result and need for reassessment.	**NBM until dysphagia screen completed.** If screen failed initiate referral to SLT (Day one) for ongoing swallowing management ▪ **Medical review:** If dysphagia screen failed. Ensure patient has IV fluids running. Consider nasogastric tube or PR/IV / topical route for essential medications if patient is unable to swallow.

Assessment	Step	Action Points
Nutrition	**Ensure hydration and nutritional requirements are assessed within 48 hours.** **Assess/ review and document:** ▪ Weight ▪ Haemodynamic status ▪ Fluid intake and output ▪ Serum haematocrit ▪ Osmolality ▪ Urea ▪ Electrolytes	▪ Maintain accurate Fluid Balance Chart and Food Chart ▪ Observe patients ability to manage oral intake ▪ Refer to dietician (Day one)if concerns identified ▪ Liaise with medical staff. **Medical review:** Consider hydration by IV fluids (Dextrose Saline **NOT** recommended in acute stroke). Consider nasogastric tube for nutritional requirements.
Cognition and communication	**Assess: Level of insight, impulsiveness and safety.** **Assess and document:** ▪ Pre-existing status ▪ Memory deficits ▪ Signs of acute confusion / delirium ▪ Perceptual/visual-spatial deficits ▪ Mood/behaviour/Communication deficit/disorder	Determine need for: ▪ nursing special (complete patient supportive observation document for close monitoring) activation of out of bed alarm (seek consent if able, inform patient/family) ▪ Referral to Occupational Therapist (Day one) **Referral to SLT if communication difficulties are suspected.**
Mobilisation	**Following either physiotherapist or nursing assessment all stroke patients should commence mobilisation (out-of-bed activity) within 48 hours of stroke onset unless otherwise contraindicated (e.g. receiving end of life care).** **Assess and document:** ▪ If patient can maintain sitting balance on edge of bed, and fully straighten affected knee. Two nursing staff may trial a stand with body weight supported through a walking frame.	▪ Consider VTE prophylaxis. TED stockings are contra-indicated in acute stroke ▪ Complete Falls Risk Assessment ▪ Complete assessment of motor power and function and record ADL ability. ▪ Maintain correct body alignment/positioning ▪ Refer to positioning guideline to protect the hemiplegic shoulder on transfers. ▪ Refer to physiotherapist and occupational therapist(Day 1) ▪ Lying and standing BP on first mobilisation. ▪ Caution when mobilising medically unstable patients e.g.: - if postural hypotension (↓20mmHg of SBP or DBP upon standing) - in respiratory distress, or clinically significant bradycardia /tachycardia Seek medical **review** as appropriate.
Elimination	**Active bowel and bladder management should occur from admission.** **Assess and document:** ▪ Complete urinary continence assessment within 48hrs - Pre and post-void bladder scan ▪ Maintain accurate Fluid Balance Chart ▪ document urinary and bowel function (Bristol Stool Chart) ▪ document continence daily	**Urinary catheterisations are to be avoided unless clinically indicated.** ▪ Promote continence through regular toileting 2-4 hourly, If urinary tract infection suspected dip-stick urine. Consider sending urine for C & S and/or bladder scan post-void bladder volume ▪ Record bowel function. Administer aperients +/- suppositories PRN if BNO 2/7. Avoid regular enemas, if possible ▪ Refer to continence nurse specialist if persistent issues. **Medical review:** If urinary retention, urinary tract infection (Urosepsis) or faecal impaction suspected.
Assessment	**Step**	**Action Points**
Oral hygiene	**Maintain oral cares 2-4 hourly.**	▪ Complete mouth cares and oral assessment every 2-4 hours

	Assess and document: ▪ Note condition of lips, tongue, gums and mucous membranes of the palate, uvula and tonsillar fossa and dentures for adequate moisture, colour, texture, integrity and debris.	▪ Apply mouth moisturiser to lips to prevent dryness. **Medical review:** Liaise with medical staff, if candida albicans noted.
Pressure area care	**If mobility impaired** ▪ Complete pressure ulcer risk tool. Suggest Waterlow or Braden scale assessment, pressure ulcer prevention and /or treatment care plan. Promote skin integrity by utilising good hygiene techniques.	▪ Pressure relieving mattress ▪ Change position minimum of four hourly as per pressure ulcer prevention: Potential to utilise turning schedule record ▪ Education of carers. **Medical review:** if skin integrity compromised.
Education	**Patient and family understand their stroke and the possible recovery pathway** ▪ Ensure awareness of driving restrictions following stroke	▪ Make education pack available on admission ▪ Provide opportunities for discussion of stroke / the individual risk factors and secondary risk prevention strategies with patient and families Consider early family meeting with IDT involvement

Glossary:

EWS – early warning sign (vital sign, observational)	BNO – bowel not open
GCS - glasgow coma scale	SBP – systolic blood pressure
BD – twice daily	DBP – diastolic blood pressure
VTE – venous thrombus embolism	ADL – activities of daily living
TED – thrombo – embolic deterrent	IDT – inter disciplinary team
NBM – nil by mouth	LVO – large vessel occlusion
NIHSS – national institute of health stroke scale	

Appendix:

1. 2017 Australian Guidelines https://informme.org.au/Guidelines/Clinical-Guidelines-for-Stroke-Management-2017
2. New Zealand Clinical Guidelines for Stroke Management 2010 http://www.stroke.org.nz/resources/NZClinicalGuidelinesStrokeManagement2010ActiveContents.pdf
3. Guidelines for care of Stroke Patients during and following Thrombolysis

   National_Stroke Thrombolysis_Guideli
4. Nursing dysphagia screen – refer to your local protocol
5. Falls Risk Assessment - http://www.hqsc.govt.nz/assets/Falls/10-Topics/topic3-risk-assessment-tools-care-plans-Sep-2013.pdf or refer to your local policy
6. Braden Assessment (http://www.bradenscale.com/images/bradenscale.pdf)
7. Waterlow Assessment (http://www.judy-waterlow.co.uk/waterlow_score.htm)

   OSS - Waterlow Score (PDF Only).pdf
8. Bristol Stool Chart (http://www.sthk.nhs.uk/library/documents/stoolchart.pdf)
9. Fever, sugar and swallow protocol (FeSS)

QASC_Lancet_paper.pdf

10. VTE prophylaxis – refer to your local policy
Anderson,C.S., Huang, Y., Wang, J.G., et al. (2008). Intensive blood pressure reduction in acute cerebral haemorrhage trial (INTERACT): A randomised pilot trial. Lancet Neurology, 7(5), 391– 399.
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