strokefoundation

Clinical Guidelines for Stroke Management

A quick guide for dietetics

This summary is an implementation tool designed to raise the awareness of the recommendations most relevant to dietitians from the full *Clinical Guidelines for Stroke Management*. While this summary focuses on dietetics, stroke care is most effective when all members of the multidisciplinary team are involved. Important caveats to the recommendations are included in the preamble to each section in the main document. Readers are referred back to the main document for details regarding these caveats along with the specific research which underpins the recommendations and the designated NHMRC levels of evidence for each recommendation. In general, where the evidence is clear and trusted, or where there is consensus on the basis of clinical experience and expert opinion (Good practice point), the word 'should' has been used to indicate that the intervention should be routinely carried out. Where the evidence is less clear or where there was significant variation in opinion, the word 'can' has been used. Individual patient factors should always be taken into account when considering different intervention options.

TABLE 1 Grading recommendations[3]

GRADE	DESCRIPTION
A	Body of evidence can be trusted to guide practice
B	Body of evidence can be trusted to guide practice in most situations
C	Body of evidence provides some support for recommendation but care should be taken in its application
D	Body of evidence is weak and recommendation must be applied with caution
Good practice point (GPP)	Recommended best practice based on clinical experience and expert opinion

TABLE 2

ABCD^2 TOOL[170]
A = Age: ≥ 60 years (1 point)
B = Blood pressure: ≥ 140 mmHg systolic and/or 90 mmHg diastolic (1 point)
C = Clinical features: unilateral weakness (2 points), speech impairment without weakness (1 point)
D = Duration: > 60 mins (2 points), 10–59 mins (1 point)
D = Diabetes (1 point)

SECTION 1 **Managing complications**

1.1 Nutrition and hydration		**Grade**
a)	All stroke patients should have their hydration status assessed, monitored and managed. Appropriate fluid supplementation should be used to treat or prevent dehydration.	B [666, 667, 669, 679, 681]
b)	All patients with stroke should be screened for malnutrition.	B [670, 686]
c)	Patients who are at risk of malnutrition, including those with dysphagia, should be referred to a dietitian for assessment and ongoing management.	GPP
d)	Screening and assessment of nutritional status should include the use of validated nutritional assessment tools or measures.	B [675]
e)	Nutritional supplementation should be offered to people whose nutritional status is poor or deteriorating.	A [682]
f)	Nasogastric tube feeding is the preferred method during the first month post stroke for people who do not recover a functional swallow.	B [687]
g)	Food intake should be monitored for all people with acute stroke.	GPP

1.2 Poor oral hygiene		**Grade**
a)	All patients, particularly those with swallowing difficulties, should have assistance and/or education to maintain good oral and dental (including dentures) hygiene.	GPP
b)	Staff or carers responsible for the care of patients disabled by stroke (in hospital, in residential care and in home care settings) can be trained in assessment and management of oral hygiene.	C [691]

1.3 Glycaemic control		**Grade**
a)	On admission, all patients should have their blood glucose level monitored and appropriate glycaemic therapy instituted to ensure euglycaemia, especially if the patient is diabetic.	GPP
b)	An early intensive approach to the maintenance of euglycaemia is currently NOT recommended.	B [296]

1.4 Fatigue		
a)	Therapy for stroke survivors with fatigue should be organised for periods of the day when they are most alert.	GPP
b)	Stroke survivors and their families/carers should be provided with information and education about fatigue; including potential management strategies such as exercise, establishing good sleep patterns, avoid sedating drugs and too much alcohol.	GPP

SECTION 2 **Secondary Prevention**

2. 1 Lifestyle modification		**Grade**
a)	Every stroke patient should be assessed and informed of their risk factors for a further stroke and possible strategies to modify identified risk factors. The risk factors and interventions include:	
	• stopping smoking: nicotine replacement therapy, bupropion or nortriptyline therapy, nicotine receptor partial agonist therapy and/or behavioural therapy	A [354–59]
	• improving diet: a diet low in fat (especially saturated fat) and sodium but high in fruit and vegetables	A [361, 363, 364, 366–69]
	• increasing regular exercise	C [377, 378]
	• avoiding excessive alcohol (i.e. no more than two standard drinks per day).	C [387, 388]
b)	Interventions should be individualised and delivered using behavioural techniques such as educational or motivational counselling.	A [356, 357, 359, 391]

2.2 Blood pressure lowering		Grade
a)	All stroke and TIA patients, whether normotensive or hypertensive, should receive blood pressure lowering therapy, unless contraindicated by symptomatic hypotension.	A [399]
b)	New blood pressure lowering therapy should commence before discharge for those with stroke or TIA, or soon after TIA if the patient is not admitted.	B [402, 403]

2.3 Cholesterol lowering		Grade
a)	Therapy with a statin should be used for all patients with ischaemic stroke or TIA.	A [430, 431]
b)	Statins should NOT be used routinely for haemorrhagic stroke.	B [430, 431]

2.4 Diabetes management		Grade
	Patients with glucose intolerance or diabetes should be managed in line with national guidelines for diabetes.	GPP

SECTION 3 **Organisation of services**

3.1 Safe transfer of care from hospital to community		Grade
a)	Prior to hospital discharge, all patients should be assessed to determine the need for a home visit, which may be carried out to ensure safety and provision of appropriate aids, support and community services.	C [59]
b)	To ensure a safe discharge occurs, hospital services should ensure the following are completed prior to discharge:	
	• patients and families/carers have the opportunity to identify and discuss their post-discharge needs (e.g. physical, emotional, social, recreational, financial and community support) with relevant members of the multidisciplinary team	GPP
	• general practitioners, primary healthcare teams and community services are informed before or at the time of discharge	GPP
	• all medications, equipment and support services necessary for a safe discharge are organised	GPP
	• any continuing specialist treatment required is organised	GPP
	• a documented post-discharge care plan is developed in collaboration with the patient and family and a copy provided to them. This may include relevant community services, self-management strategies (e.g. information on medications and compliance advice, goals and therapy to continue at home), stroke support services, any further rehabilitation or outpatient appointments, and an appropriate contact number for any queries.	GPP
c)	A locally developed protocol may assist in implementation of a safe discharge process.	GPP
d)	A discharge planner may be used to coordinate a comprehensive discharge program for stroke survivors.	D [65]

3.2 Carer training		Grade
	Relevant members of the multidisciplinary team should provide specific and tailored training for carers/family before the stroke survivor is discharged home. This should include training, as necessary, in personal care techniques, communication strategies, physical handling techniques, ongoing prevention and other specific stroke-related problems, safe swallowing and appropriate dietary modifications, and management of behaviours and psychosocial issues.	B [67]

3.3 Community rehabilitation and follow up services		Grade
a)	Health services with a stroke unit should provide comprehensive, experienced multidisciplinary community rehabilitation and adequately resourced support services for stroke survivors and their families/carers. If services such as the multidisciplinary community rehabilitation services and carer support services are available, then early supported discharge should be offered for all stroke patients with mild to moderate disability.	A [68, 69]
b)	Rehabilitation delivered in the home setting should be offered to all stroke survivors as needed. Where home rehabilitation is unavailable, patients requiring rehabilitation should receive centre-based care.	B [72, 73]
c)	Contact with and education by trained staff should be offered to all stroke survivors and families/carers after discharge.	C [77, 81]
d)	Stroke survivors can be managed using a case management model after discharge. If used, case managers should be able to recognise and manage depression and help to coordinate appropriate interventions via a medical practitioner.	C [89, 92]
e)	Stroke survivors should have regular and ongoing review by a member of a stroke team, including at least one specialist medical review. The first review should occur within three months, then again at six and 12 months post discharge.	GPP
f)	Stroke survivors and their carers/families should be provided with the contact information for the specialist stroke service and a contact person (in the hospital or community) for any post-discharge queries for at least the first year following discharge.	GPP
3.4 Long term rehabilitation		**Grade**
a)	Stroke survivors who have residual impairment at the end of the formal rehabilitation phase of care should be reviewed annually usually by the general practitioner or rehabilitation provider to consider whether access to further interventions are needed. A referral for further assessment should be offered for relevant allied health professionals or general rehabilitation services if there are new problems not present when undertaking initial rehabilitation, or if the person's physical or social environment has changed.	GPP
b)	Stroke survivors with residual impairment identified as having further rehabilitation needs should receive therapy services to set new goals and improve task-orientated activity.	B [104, 105]
c)	Stroke survivors with confirmed difficulties in performance of personal tasks, instrumental activities, vocational activities or leisure activities should have a documented management plan updated and initiated to address these issues.	GPP
d)	Stroke survivors should be encouraged to participate long term in appropriate community exercise programs.	C [103]
3.5 Standardised assessment		**Grade**
	Clinicians should use validated and reliable assessment tools or measures that meet the needs of the patient to guide clinical decision-making.	GPP
3.6 Goal setting		**Grade**
a)	Stroke survivor and their families/carers who are involved in the recovery process should have their wishes and expectations established and acknowledged.	GPP
b)	Stroke survivor and their families/carers should be given the opportunity to participate in the process of setting goals unless they choose not to or are unable to participate.	B [5]
c)	Health professionals should collaboratively set goals for patient care. Goals should be prescribed, specific and challenging. They should be recorded, reviewed and updated regularly.	C [122]
d)	Stroke survivors should be offered training in self-management skills that include active problem-solving and individual goal setting.	GPP

3.7 Team meetings		Grade
	The multidisciplinary stroke team should meet regularly (at least weekly) to discuss assessment of new patients, review patient management and goals, and plan for discharge.	C [41]
3.8 Information and education		**Grade**
a)	All stroke survivors and their families/carers should be offered information tailored to meet their needs using relevant language and communication formats.	A [125]
b)	Information should be provided at different stages in the recovery process.	B [125]
c)	Stroke survivors and their families/carers should be provided with routine, follow-up opportunities for clarification or reinforcement of the information provided.	B [125]
3.9 Family meetings		**Grade**
	The stroke team should meet regularly with the patient and their family/carer to involve them in management, goal setting and planning for discharge.	C [41]
3.10 Stroke service Improvement		**Grade**
a)	All stroke services should be involved in quality improvement activities that include regular audit and feedback ('regular' is considered at least every two years).	B [141]
b)	Indicators based on nationally agreed standards of care should be used when undertaking any audit.	GPP

This summary is based on the Clinical Guidelines for Stroke Management 2010 which have been approved by the NHMRC and endorsed by the Dietitians Association of Australia.

About the National Stroke Foundation

The National Stroke Foundation is a not-for-profit organisation that works with the public, government, health professionals, patients, carers, families and stroke survivors to reduce the impact of stroke on the Australian community.

Our challenge is to save 110 000 Australians from death and disability due to stroke over 10 years.

We will achieve this by:

- educating the public about the risk factors and signs of stroke and promoting healthy lifestyles
- working with all stakeholders to develop and implement policy on the prevention and management of stroke
- encouraging the development of comprehensive and coordinated services for all stroke survivors and their families
- encouraging and facilitating stroke research.

StrokeLine

The National Stroke Foundation's 1800 787 653 StrokeLine provides information about stroke prevention, recovery and support. Our qualified health professionals offer comprehensive information and help.

The toll free service is open business hours EST across Australia, a message service is available outside these hours.

References are available from: www.strokefoundation.com.au. This document is a general guide to appropriate practice, to be followed subject to the clinician's judgement and the patient's preference in each individual case. The guidelines are designed to provide information to assist decision-making and are based on the best evidence available at the time of development. Copies of the document can be downloaded through the National Stroke Foundation website: www.strokefoundation.com.au.