

PRIMARY CARE CONCISE GUIDELINES FOR STROKE 2008

This concise guide contains extracts from the National clinical guideline for stroke 3rd edition, which contains over 300 recommendations, covering almost every aspect of stroke management. The recommendations below were compiled by members of the British Primary Care Neurology Society and the Intercollegiate Stroke Working Party. They aim to provide clinicians working in primary care with ready access to the latest guidance.

Recommendations are given with their number so they can be found in the main guideline which can be accessed at <http://www.rcplondon.ac.uk/pubs/brochure.aspx?e=250>
Recommendations taken from the National Institute for Health and Clinical Excellence (NICE) clinical guideline 68 have a background tint.

1. RAPID RECOGNITION OF SYMPTOMS AND DIAGNOSIS

Stroke

Most (95%) people will have their first symptoms outside hospital. It is vital that members of the general public and health care professionals, can recognise stroke as accurately as possible to facilitate appropriate emergency care.

Recommendations

- 3.1.1 All community medical services and ambulance services (including call handlers) should be trained so that they treat patients with symptoms suggestive of an acute stroke as an emergency requiring urgent transfer to a centre with specialised hyperacute stroke services.
- 3.1.1. All patients seen within three hours of an acute neurological syndrome suspected to be a stroke should be transferred directly to a specialised hyperacute stroke unit that will assess for thrombolysis and deliver it if clinically indicated.
- 4.1.1 In people with sudden onset of neurological symptoms a validated tool such as FAST (Face Arm Speech Test) should be used to screen for the diagnosis of stroke or TIA.
- 4.1.1. In people with sudden onset of neurological symptoms, hypoglycaemia should be excluded.

Facial weakness	Can the person smile? Has their mouth or eye drooped?
Arm weakness	Can the person raise both arms?
Speech problems	Can the person speak clearly and understand what you say?
Time: Act FAST	Stroke is a medical emergency Call 999 – early treatment can prevent further brain damage



Face Arm Speech Test used to screen for the diagnosis of stroke or TIA

Any person with an acute onset neurological syndrome with persisting symptoms or signs (i.e. potential stroke) needs diagnosis to exclude causes such as hypoglycaemia. The process of diagnosis will need to establish whether or not the stroke is due to ischaemia (approximately 80% of all strokes) or an intracerebral haemorrhage (approximately 20%). Management is determined by type of stroke. Those with ischaemic stroke presenting within three hours of onset of symptoms should be assessed for thrombolysis in centres with staff and systems in place to deliver this intervention. Stroke patients have better long term outcomes if they are managed on a stroke unit rather than a general ward or in the community.

Management for those not admitted to hospital

Hospital treatment for acute stroke should be the rule and treatment in community the exception determined by local factors (for example late presentation, co-morbidities and informed patient choice).

Recommendation

- 3.4.1 Any patient with a stroke who can not be admitted to hospital and who is not receiving palliative care should be seen by the specialist teams at home or on an out-patient basis as soon as possible for diagnosis, treatment, rehabilitation, and risk factor reduction at a standard comparable to other patients.

Transient Ischaemic Attack (TIA)

In a transient ischaemic attack, symptoms and signs fully resolve within 24 hours. It is therefore a retrospective diagnosis. If there are symptoms and signs at the time of presentation then the person should be treated as having a stroke.

Any person who is seen after a short-lived acute onset neurological syndrome which has fully resolved at the time of presentation needs specialist assessment to determine whether in fact the cause is vascular (about 50% are not), and then to identify treatable causes. This process has to recognise that the risk of stroke is greatest in the first seven to fourteen days.

4.2.1 Recommendations

- 4.2.1 Any patient who presents with transient neurological symptoms suggestive of a cerebrovascular event should be considered to have had a transient ischaemic attack.
- 4.2.1 People with a suspected TIA, that is, they have no neurological symptoms at the time of assessment (within 24 hours), should be assessed as soon as possible for their risk of subsequent stroke using a scoring system, such as ABCD².
- 4.2.1 People who have had a suspected TIA who are at high risk of stroke (e.g. an ABCD² score of 4 or above) should receive:
- aspirin (300mg daily) started immediately
 - specialist assessment and investigation **within 24 hours** of onset of symptoms



- measures for secondary prevention introduced as soon as the diagnosis is confirmed, including discussion of individual risk factors.

4.2.1 People with crescendo TIA (two or more TIAs in a week) should be treated as being at high risk of stroke, (as described in recommendation 4.2.1C), even though they may have an ADCD² score of 3 or below.

4.2.1 People who have had a suspected TIA who are at lower risk of stroke (that is, an ABCD² score of 3 or below) should receive:

- aspirin (300mg daily) started immediately
- specialist assessment and investigation as soon as possible, but definitely **within one week** of onset of symptoms
- measures for secondary prevention introduced as soon as the diagnosis is confirmed, including discussion of individual risk factors

4.6.1 I Any person with acute ischaemic stroke who is allergic to or genuinely intolerant of aspirin should be given an alternative antiplatelet agent. (NICE Technology Appraisal Guidance 90 supports the use of clopidogrel in this situation.)

Age	≥ 60 yrs	1 point
	<60 yrs	0 points
Blood pressure	≥ 140/90	1 point
	<140/90	0 points
Clinical Features	Speech impairment without weakness	1 point
	Unilateral weakness	2 points
Duration of symptoms	10-59 mins	1 point
	≥ 60 mins	2 points
Diabetes	Yes	1 point

ABCD² SCORE FOR STROKE RISK AFTER TIA

2. TRANSFER OF CARE

Many patients feel afraid and unsupported after discharge from hospital. The experience of many has been that communication between services is often poor with inadequate information being delivered too late.

Recommendations

- 3.7.1 Hospital services should have a locally negotiated protocol to ensure that before discharge occurs:
- Patients and families are fully prepared, and have been fully involved in planning discharge
 - General practitioners, primary healthcare teams and social services departments (adult services) are informed before or at the time of discharge
 - All equipment and support services necessary for a safe discharge are in place
 - Any continuing specialist treatment required will be provided without delay by an appropriate specialist service



- Patients and families are given information about and offered contact with appropriate statutory and voluntary agencies

3.15.1 On discharge from hospital:

- A patient should have adequate supplies of medication to last until community services can supply them
- The general practitioner (or other doctor taking on responsibility) should be given a comprehensive list of all medications to be continued on the day of discharge
- The patients' ability to take full responsibility for self-medication should be assessed, to include cognition, understanding, manual dexterity and ability to swallow
- If a patient is not able to take responsibility for their medication following assessment then it is essential that family/carers are aware of the reasons for each medication.

3. SECONDARY PREVENTION

From the moment a person has an acute cerebrovascular event, that person is at an increased risk of further stroke and other vascular events. The risk of further stroke is highest early after stroke or TIA and may be as high as 10% within the first week, 20% within the first month, and between 30% and 43% over the next five years.

General Recommendations

- 3.8.1 General practitioners should maintain a stroke register to enable them to audit routinely both primary and secondary prevention of stroke.
- 5.2.1 For each patient, an individualised and comprehensive strategy for stroke prevention should:
- be implemented as soon as possible following a TIA or stroke
 - continue long term.
- 5.2.1 For each patient, information about stroke and risk factors should be:
- given first in the hospital setting
 - reinforced at every opportunity by all health professionals involved in the care of the patient
 - provided in an appropriate format for the patient, taking into account both their stroke-specific impairments and their personal situation
- 5.2.1 Patients should have their risk factors reviewed and monitored regularly, at a minimum on a yearly basis
- 5.2.1 All patients receiving medication for secondary prevention should:
- be given information about the reason for the medication, how and when to take it and any possible common side effects
 - receive verbal and written information about their medicines in a format appropriate to their needs and abilities
 - have compliance aids such as large-print labels and non-childproof tops provided, according to their level of manual dexterity, cognitive impairment and personal preference and compatible with safety in the home environment



- be aware of how to obtain further supplies of medication
- have a regular review of their medication

Lifestyle Recommendations

- 5.3.1 All patients who smoke should be advised to stop smoking:
- smoking cessation should be promoted at every opportunity using individualised strategies which may include pharmacological agents and/or psychological support
- 5.3.1 All patients should be advised to take regular exercise as far as they are able:
- The aim should be to achieve moderate physical activity (sufficient to become slightly breathless) for 20-30 minutes each day
 - Exercise programmes should be considered, and tailored to the individual following appropriate assessment, starting with low intensity physical activity and gradually increasing to moderate levels.
- 5.3.1 All patients should be advised to eat the optimum diet:
- eating five or more portions of fruit and vegetables per day
 - eating two portions of fish per week, one of which should be oily (salmon, trout, herring, pilchards, sardines, fresh tuna)
- 5.3.1 All patients should be advised to reduce and replace saturated fats in their diet with polyunsaturated or monounsaturated fats by:
- using low fat dairy products;
 - replacing butter and lard with products based on vegetable and plant oils;
 - reducing meat intake
- 5.3.1 All patients, but especially patients with hypertension, should be advised to reduce their salt intake by:
- not adding salt to food,
 - using as little as possible in cooking and
 - choosing lower sodium / salt foods
- 5.3.1 Patients should be advised that there is no evidence that oral vitamin supplementation will reduce the risk of stroke or other vascular events.
- 5.3.1 Patients who are overweight or obese (as determined by BMI or waist: hip measurement ratio) should be offered:
- advice and support to aid weight loss, which may include diet, behavioural therapy and physical activity
 - medication to aid weight loss only after dietary advice and exercise has been started and evaluated
- 5.3.1 Patients who drink alcohol should be advised to keep within recognised safe drinking limits of no more than 3 units per day for men and 2 units per day for women



Blood pressure recommendations

The risk of first stroke is more-or-less directly related to the actual blood pressure, with no obvious threshold values in population studies. Some clinicians have advocated a 'the lower the better' approach.

- 5.4.1 All patients should have their blood pressure checked, and should be treated in keeping with national guidelines:
- an optimal target BP for patients with established cardiovascular disease is 130/80 mmHg
 - for patients known to have bilateral severe (>70%) internal carotid artery stenosis a slightly higher target (e.g. systolic BP of 150 mmHg) may be appropriate.
- 5.4.1 Blood pressure reduction should be undertaken using one or more of the following agents:
- In hypertensive patients aged 55 or older or black patients of any age, the first choice for initial therapy should be either a calcium-channel blocker or a thiazide-type diuretic. *[For this recommendation, black patients are considered to be those of African or Caribbean descent, not mixed-race, Asian or Chinese.]*
 - In hypertensive patients younger than 55, the first choice for initial therapy should be an angiotensin-converting enzyme (ACE) inhibitor (or an angiotensin-II receptor antagonist if an ACE inhibitor is not tolerated).
 - An ACE inhibitor, calcium-channel blocker or a thiazide-type diuretic should be added if target BP is not achieved with the initial choice
- 5.4.1 Beta blockers should not usually be initiated as first or second-line for the prevention of recurrent stroke (unless there are other specific clinical indications).

Anti-thrombotic recommendations

- 5.5.1 Aspirin and dipyridamole should be the standard secondary prevention treatment following ischaemic stroke:
- The daily dose of aspirin should be between 50mg and 300mg aspirin and dipyridamole MR 200mg bd
 - for patients who are unable to tolerate dipyridamole, aspirin alone is appropriate
 - for patients who are intolerant of aspirin, clopidogrel 75mg once daily is a suitable alternative
- 5.5.1 Addition of a proton pump inhibitor should only be considered when there is dyspepsia or other significant risk of gastro-intestinal bleeding associated with aspirin, to allow aspirin medication to continue.
- 5.5.1 Anticoagulation:
- should be recommended in every patient with persistent or paroxysmal atrial fibrillation (valvular and non-valvular) unless contraindicated
 - should not be started (after cerebral events) until brain imaging has excluded haemorrhage, and not usually until 14 days have passed from the onset of disabling ischaemic stroke
 - should not be used for patients in sinus rhythm unless a major cardiac source of embolism has been identified



- 5.5.1 Those with recurrent TIA or stroke should be managed in the same way as those who have had a single event. More intensive antiplatelet therapy or anticoagulation should only be given as part of a clinical trial or in exceptional clinical circumstances.

Lipid lowering therapy recommendations

- 5.6.1 All patients who have had an ischaemic stroke or transient ischaemic attack should be treated with a statin drug unless contraindicated, according to the following criteria:
- a total cholesterol of >3.5 mmol/L, **or**
 - LDL cholesterol >2.5 mmol/L
- 5.6.1 The treatment goals should be:
- total cholesterol <4.0 mmol/L **and** LDL cholesterol <2.0 mmol/L, **or**
 - a 25% reduction in total cholesterol **and** a 30% reduction in LDL cholesterol,
 - whichever achieves the lowest absolute value.
- 5.6.1 Treatment with statin therapy should be avoided or used with caution (if required for other indications) in individuals with a history of haemorrhagic stroke, particularly those with inadequately controlled hypertension.

Investigation recommendations

- 5.1.1 For patients who have had an ischaemic stroke or TIA the following risk factors should also be checked for:
- atrial fibrillation and other arrhythmias
 - structural cardiac disease
 - carotid artery stenosis (only for people likely to benefit from surgery for stenosis)
- 5.1.1 In any patient where no common cause is identified, fuller investigation for other rare causes should be undertaken.
- 4.10.1 Any patient who has had a stroke and is in atrial fibrillation should be started on anti-coagulation two weeks after stroke onset, unless otherwise contra-indicated.

Oral contraception and Hormone replacement therapy

There may be a very small increase in the absolute risk of ischaemic stroke with use of the combined oral contraception, equivalent to approximately one additional ischaemic stroke per year per 24,000 non-smoking, normotensive women with no history of stroke using low-oestrogen oral contraceptives. There is no significant increase in risk of haemorrhagic stroke. Some women who have had a stroke may wish to continue with hormone replacement therapy treatment for control of symptoms and an enhanced quality of life.

Recommendations

- 5.8.1 The combined oral contraceptive pill should not be routinely prescribed following ischaemic stroke.
- 5.9.1 The decision whether to start or continue hormone replacement therapy (HRT) should be discussed with the individual patient and based on an overall assessment of risk and benefit. Consideration should be given to the dosage and formulation (e.g. oral or transdermal preparations).

4. END-OF-LIFE (PALLIATIVE) CARE

About one third of patients die within 12 months of a stroke. Some patients die predictably over the first few weeks and stroke may cause a range of distressing symptoms that need to be managed, even if it is felt that death is inevitable. These may include pain, depression, confusion and agitation, and problems with nutrition and hydration.

Recommendations

- 3.14.1 All patients who are dying should have access to specialist palliative care expertise when needed

5. REHABILITATION

There is no absolute end to recovery, but most improvement occurs within six months but with many people continuing to make some gains long after that.

Rehabilitation should be undertaken by a multidisciplinary team that have specialist expertise in stroke and rehabilitation.

Recommendations

- 6.1.1 All patients entering a period of active rehabilitation should be screened for common impairments.
- 6.1.1 The nature and consequences of a patient's impairments should always be explained to the patient (and to the family), and if necessary and possible they should be taught strategies or offered treatments to overcome or compensate for any impairment affecting activities or safety, or causing distress.
- 6.1.1 Patients should always be informed of realistic prospects of recovery or success and should always have realistic goals set.
- 3.13.1 Patients should undergo as much therapy appropriate to their needs as they are willing and able to tolerate and in the early stages they should receive a minimum of 45 minutes daily of each therapy that is required.
- 6.2.1 When a patient's goal is not achieved, the reason(s) should be established and:
- the goal should be adjusted, **or**
 - the intervention should be adjusted, **or**
 - no further intervention should be given towards that goal
- 6.2.1 When a therapist or team stops giving rehabilitation, the therapist or service should:
- Discuss the reasons for this decision with the patient
 - Ensure that any continuing support the patient needs to maintain and/or improve health is provided
 - Teach the patient and, if necessary, carers and family how to maintain health
 - Provide clear instructions on how to contact the service for reassessment **and**
 - Outline what specific events or changes should trigger further contact
- 6.3.1 Acupuncture should only be used in the context of ongoing clinical trials.



Further rehabilitation

Many patients wish to have rehabilitation therapy in the long-term, either continuously or intermittently. However, it is neither practical nor best practice to continue therapy unless there is benefit to be gained; it wastes resources and maintains unrealistic expectations.

Recommendations

- 7.1.1 Any patient whose situation changes (e.g. new problems or changed environment) should be offered further assessment by the specialist stroke rehabilitation service.
- 7.1.1 Any patient with residual impairment after the end of initial rehabilitation should be offered a formal review at least every six months, to consider whether further interventions are warranted, and should be referred for specialist assessment if:
- new problems, not present when last seen by the specialist service, are present
 - the patient's physical state or social environment has changed
- 7.1.1 Further therapy should only be given if clear goals are identified.

Mobility

Almost all patients with limited mobility choose a return of independent mobility as their highest priority. Almost all other activities and many social roles are predicated upon adequate mobility. Mobility encompasses a wide range of activities.

Recommendations

- 6.8.1 Patients should be taught and encouraged to practice as much as possible any aspects of mobility judged within their safe capability:
- moving around the bed and/or
 - transfers from bed to chair and from chair to chair (or toilet) and/or
 - walking, indoors and then outdoors and/or
 - using stairs

Spatial awareness (e.g. neglect)

Disturbance of spatial awareness refers to a group of behaviours where the patients acts as if they had reduced or absent knowledge about (awareness of) some part of their environment. Other terms used include neglect, visuo-spatial neglect, and sensory inattention. It is more common in people with right hemisphere brain damage.

Recommendation

- 6.31.1 Any patient with a stroke affecting the right hemisphere should be considered at risk of reduced awareness on the left, and should be tested formally if this is suspected clinically

Apraxia

Apraxia refers to the loss or disturbance of the conceptual ability to organise actions to achieve a goal. For example people with motor apraxia often have difficulty carrying out everyday activities such as making a hot drink despite adequate muscle strength and sensation; they may also have difficulties in selecting the right object at the right time.



Recommendation

- 6.33.1 Any person who has difficulties in executing tasks despite apparently adequate limb movement should be assessed formally for the presence of apraxia.

Executive functioning

Executive functioning refers to the ability to plan and execute a series of tasks, and also to the ability to foresee the (social) consequences of actions.

Recommendation

- 6.34.1 Any person with an executive disorder and activity limitation should be taught compensatory techniques (e.g. use of electronic organisers or pagers, or use of written checklists)

Aphasia (dysphasia; impairment of language)

Aphasia refers to the specific impairment of language functions – the ability to form and understand words whether communicated orally or in writing. It is sometimes referred to as dysphasia. Aphasia can have a significant impact on all aspects of an individual's life often affecting self-image and well-being. Subtle difficulties with communication can also occur with non-dominant-hemisphere damage.

Recommendation

- 6.36.1 Any patient found to have aphasia on screening or suspected to have it on clinical grounds should have a formal assessment of language and communication by a speech and language therapist

Dysarthria

Dysarthria refers to the vocal consequences of impaired control over the muscles responsible for producing intelligible speech. Speech is usually described as slurred or blurred.

Recommendation

- 6.37.1 Any person who has dysarthria following stroke sufficiently severe to limit communication should:
- Be taught techniques to improve clarity of speech
 - Be assessed for compensatory alternative and augmentative communication techniques (e.g. letter board, communication aids) if speech remains unintelligible

Visual impairments and hemianopia

Patients who have had a stroke often have visual problems including disruption of eye movement control causing diplopia, nystagmus, blurred vision and loss of depth perception. Visual field loss such as hemianopia is also common.

Recommendation

- 6.39.1 Every patient should have:
- A practical assessment of visual acuity wearing their appropriate glasses checking their ability to see the newspaper text and distant objects clearly
 - Examination for the presence of hemianopia (visual field defect)



Swallowing problems: assessment and management

Swallowing difficulty (dysphagia) is common in stroke and can lead to food and/or fluid and/or saliva entering the airway (aspiration). This, in principle at least, increases the risk of aspiration pneumonia. Patients with swallowing problems may also have a reduced intake of fluid and food, and therefore are also at an increased risk of malnutrition. They may avoid eating in social setting, and thus lose the physical and social pleasures normally associated with food.

Recommendations

- 6.41.1 Every patient should have their ability to swallow screened and documented as soon as possible after stroke onset by a person with appropriate training using (if appropriate) a recognised, standard screening assessment (e.g. swallowing 50ml of water)
- 6.41.1 Patients with difficulties in swallowing should be assessed by a speech and language therapist or other appropriately trained professional with specialism in dysphagia for active management of oral feeding by:
- Sensory modification, such as altering taste and temperature of foods or carbonation of fluids
 - Texture modification of solids and/or liquids

Mood following stroke

Mood disturbance is common after stroke. Depression, anxiety and emotionalism may impede a patient's participation in therapy, their ability to perform activities safely and independently and may exacerbate other impairments and functional recovery.

Depression

Depression is common but often short-lasting and it often remits as the patient recovers function

Recommendations

- 6.25.1 Every patient entering rehabilitation should be screened for depression using a validated simple screening test (e.g. asking "Do you feel depressed?" or the GHQ-12 or PHQ-9 questionnaire). In addition:
- mood should also be assessed at later times, especially after stopping active rehabilitation or if depression is suspected
 - screening tests such as 'smiley faces' or observational criteria alone should not be relied upon as the sole means of initial diagnosis
 - questionnaires may be simplified to a *yes/no* format for people with communication difficulties.
 - the patient's past should be investigated for any history of mood disturbance
- 6.25.1 In people with aphasia and other impairments complicating assessment of mood, careful observations over time (including response to a trial of anti-depressant medication if considered necessary) should be used.
- 6.25.1 Any patient with depressed mood should be provided with information and advice.



- 6.25.1 Any patient considered to have depression should be screened for anxiety and emotionalism.
- 6.25.1 Patients with minor depression should be monitored for progression and worsening and should be especially involved in one or more of:
- increased social interaction
 - increased exercise
 - goal setting
 - other psycho-social interventions (e.g. using voluntary sector resources)
- 6.25.1 Patients whose depression is more severe or persistent should be offered one or more of:
- anti-depressant drug treatment
 - psychological therapy given by an appropriately trained and supervised practitioner
 - interventions to reduce any contributory factors such as pain and social isolation (e.g. attending voluntary sector stroke groups).
- 6.25.1 Anti-depressant treatment should:
- not be used routinely to prevent depression developing or to improve other outcomes
 - be monitored, and continued for at least six months if a benefit is achieved

Anxiety

After stroke, anxiety is almost as common as depression, although it is commonly not recognised. It is often focused on matters such as fear of falling and the risk of recurrence.

Recommendations

- 6.26.1 Any patient with anxiety should have the cause(s) established, and should be provided with appropriate information and advice
- 6.26.1 Any patient whose anxiety is impeding their recovery and rehabilitation or causing distress should be:
- assessed and considered for psychological treatment
 - be screened for emotionalism and depression.

Emotionalism

Emotionalism refers to the phenomenon of crying (or, less commonly, laughing) in an overly emotional way, or after what appears to be minimal provoking stimuli. The crying or laughing is usually uncontrolled and may be disruptive but it often resolves spontaneously. It may also be referred to as emotional lability.

Recommendations

- 6.27.1 Any patient who cries or laughs in unexpected situations or who is upset by their fluctuating emotional state should be assessed by a specialist able to diagnose emotionalism.
- 6.27.1 Patients with severe, persistent or troublesome tearfulness (emotionalism) should be given anti-depressant drug treatment, monitoring the frequency of crying to check effectiveness.

Cognitive impairments - general

All patients with cerebrovascular disease are at risk of cognitive loss.

Recommendations

- 6.28.1 Every patient seen after a stroke **or** transient ischaemic episode should be considered to have at least some cognitive losses in the early phase.
- Routine screening should be limited to detecting more severe levels of cognitive impairment using simple standardised measures (e.g. mini-mental state examination or short orientation-memory-concentration test).
- 6.28.1 Any patient not progressing as expected in rehabilitation should have a more detailed cognitive assessment to determine whether cognitive losses are causing specific problems or hindering progress
- 6.28.1 People returning to cognitively demanding activities (e.g. some work, driving) should have their cognition assessed formally prior to returning to the activity.

Attention and concentration

Attention is a prerequisite for almost all cognitive functions. Disturbed alertness is common after stroke especially in the first few days and weeks, and more so with right hemisphere stroke.

Recommendation

- 6.29.1 Any person after a stroke who appears easily distracted or unable to concentrate should have their abilities to focus, sustain and divide their attention formally assessed

Memory

Subjective problems with memory are almost universal after stroke, and on formal testing reduced memory is quite common. There is a close association between cerebrovascular disease and dementia, including Alzheimer's disease, and about 20% of people who survive six months are said to have 'dementia', with memory loss being a characteristic feature.

Recommendation

- 6.30.1 A Patients who complain of marked memory impairment and patients clinically considered to have difficulty in learning and remembering should have their memory assessed formally using a standardised measure such as the Rivermead Behavioural Memory Test

6. LONG TERM CARE

Neuropathic pain (central post-stroke pain)

Stroke is one cause of pain generated following damage to neural tissues (so-called neuropathic pain, or central post-stroke pain). The frequency varies between 5% and 20%.

Recommendations

- 6.23.1 All patients complaining of or experiencing pain should have the cause of the pain diagnosed by someone who can distinguish the various specific, treatable causes
- 6.23.1 Any patient with neuropathic pain should receive pharmacological treatment with one or more of:



- Antidepressants (tricyclic or other)
- Anticonvulsants, usually starting with carbamazepine or gabapentin

Oral health

Poor oral health may follow from an inability to undertake mouth and dental cleaning, due to cognitive impairment, visuospatial neglect or upper limb weakness. It may be exacerbated by medication side effects such as dry mouth, inadequate salivary control, and poor oral hygiene. Poor oral health can increase the risk of malnutrition and affect self-esteem.

Recommendation

6.42.1 Staff or carers responsible for the care of patients disabled by stroke (in hospital, in residential and in home care settings) should be trained in:

- assessment of oral hygiene
- selection and use of appropriate oral hygiene equipment and cleaning agents
- provision of oral hygiene routines
- recognition and management of swallowing difficulties

Nutrition

Malnutrition, poor nutrition and dehydration are common after stroke, being present in up to 30% of patients, and are associated with a worse outcome and a slower rate of recovery. Stroke patients with dysphagia are more at risk. The Malnutrition Universal Screening Tool (MUST) can be used for stroke patients.

Recommendation

6.43.1 Screening patients should be repeated:

- weekly for hospital inpatients
- when there is a clinical concern in all other patients

Support (practical and emotional)

Many people need considerable care (support with activities) from other people after stroke, both for personal, domestic and community activities.

Recommendation

7.3.1 A patient and their carers should have their individual practical and emotional support needs identified:

- when they leave hospital
- when rehabilitation ends
- at regular intervals thereafter

7.3.1 Health and social services personnel should ensure that:

- any identified support needs are met somehow if at all possible
- support services appropriate to the needs of the patient and carers are provided if they are the responsibility of statutory services
- patients are informed about organisations able to provide other needed services, and how to contact them
- patients and carers receive all the financial and practical support they are entitled to.



Social participation

The ultimate goal of all healthcare is to help a person achieve the social participation that they want.

Recommendation

- 7.2.1 The rehabilitation service should establish with each patient specific social activities that they would like to undertake and should:
- advise the patient on the potential to undertake the necessary activities
 - identify any barriers to succeeding in the role, and advise the patient how to overcome those barriers
 - where appropriate, make referral to community organisations (statutory and non-statutory) that can support the patient in fulfilling their wanted roles

Driving

Being able to drive is often essential to patients, both for practical reasons and because it influences self-esteem and mood. However, there are significant potential risks associated with driving after stroke.

Recommendations

- 6.48.1 Every health care professional giving advice on driving should ensure that it is accurate and up-to-date, and should consult the Driver and Vehicle Licensing Agency (DVLA) regulations (<http://www.dvla.gov.uk/media/pdf/medical/aagv1.pdf>).
- 6.48.1 Every person who has a stroke or transient ischaemic attack should be told that they must not drive for a minimum of four weeks.
- 6.48.1 Every person who has a stroke leaving them with a neurological deficit of any type (e.g. including visual and cognitive impairments) should be told that they must inform the DVLA.

Vocational activities

Recommendation

- 6.49.1 Patients who wish to return to work (paid or unpaid employment) should:
- Have their work requirements established with their employer (provided the patient agrees)
 - Be assessed cognitively, linguistically and practically to establish their potential
 - Be advised on the most suitable time and way to return to work, if this is practical
 - Be referred to a specialist in employment for people with disability if extra assistance or advice is needed (the Disability Employment Advisor in England)



Sexual dysfunction

Sexual dysfunction is common after stroke for many reasons: altered sensation, limited mobility, effect of drugs, mood changes etc. It can affect both men and women.

Recommendation

6.44.1 B Any patient who has a limitation in sexual functioning and who wants further help should:

- Be assessed for treatable causes
- Be assessed for the use of sildenafil or an equivalent drug, if suffering from erectile dysfunction
- Be advised about ways to overcome practical problems
- Be referred to a person with expertise in psychosexual problems

