

National Institute for Health and Clinical Excellence

NICE clinical guideline on Stroke rehabilitation: the rehabilitation and support of stroke patients
Document cover sheet

Date	Version number	Editor	Action
4/8/11	1	RP	Preconsultation edit
11/8/11	2	GR/DP	Further preconsultation edits
18/8/11	2	RP	Amendments after NCC changes
25/8/11	3	GR	Amendments after GDG contributions.
25/8/11	4	TD	References updated.
31/8/11	5	TD	Amendment to Aphasia recommendation and bullets formatted.

**Stroke rehabilitation:
the rehabilitation and support of stroke
patients**

NICE guideline

Draft for consultation, August, 2011

If you wish to comment on this version of the guideline, please be aware that all the supporting information and evidence is contained in the full version.

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Introduction

Each year in England, approximately 110,000 people have a first or recurrent stroke ¹. Most people survive a first stroke, but often have significant morbidity. More than 900,000 people in England live with the effects of stroke. Stroke mortality rates in the UK have been falling steadily since the late 1960s ². The advent of thrombolysis (the process of breaking up and dissolving blood clots using drugs) and subsequent reorganisation of stroke services so that thrombolysis can be effectively delivered has further reduced mortality and morbidity from stroke. However, the burden of stroke may increase in the future as a consequence of the ageing population.

Despite reduced mortality and morbidity, over 30% of people who have a stroke will have persisting disability, and need access to effective rehabilitation services. Stroke rehabilitation aims to restore physiological or psychological function, or help someone adapt to the loss of function when it can't be fully restored. It aims to enhance functional activities and societal participation and thus improve quality of life.

A rehabilitation service comprises a multidisciplinary team of people who work together towards common goals for people who have had a stroke. They involve and educate the patient and family, have relevant knowledge and skills and can resolve most of the common problems faced by people who have had a stroke. Key aspects of the process include multidisciplinary assessment, problem definition and measurement, treatment planning through goal setting, delivering interventions (which may either effect change or support the individual in managing persisting change) and evaluating effectiveness.

There are clear standards, endorsed by the British Society of Rehabilitation Medicine, for the delivery of inpatient and outpatient rehabilitation. These are reflected in the NICE stroke quality standard and the National Stroke Strategy. Overall there is little doubt that the approach described by these standards is effective; what individual interventions should take place within this structure is less clear.

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The aim of this guideline is to consider the interventions that are topical in stroke rehabilitation and to consider the evidence that they result in improved outcomes. This guideline covers some of the available interventions that can be used in stroke rehabilitation, and highlights where there are gaps in the evidence. It is not intended to be comprehensive.

Patient-centred care

This guideline offers best practice advice on the care of adults and young people 16 years and older who have had a stroke with continuing impairment, activity limitation or participation restriction.

Treatment and care should take into account patients' needs and preferences. People with stroke-related impairments should have the opportunity to make informed decisions about their care and treatment, in partnership with their healthcare professionals. If patients do not have the capacity to make decisions, healthcare professionals should follow the Department of Health's advice on consent (available from www.dh.gov.uk/consent) and the code of practice that accompanies the Mental Capacity Act (summary available from www.publicguardian.gov.uk). In Wales, healthcare professionals should follow advice on consent from the Welsh Assembly Government (available from www.wales.nhs.uk/consent).

Good communication between healthcare professionals and patients is essential. It should be supported by evidence-based written information tailored to the patient's needs. Treatment and care, and the information patients are given about it, should be culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English.

If the patient agrees, families and carers should have the opportunity to be involved in decisions about treatment and care.

Families and carers should also be given the information and support they need.

Key priorities for implementation

The following recommendations have been identified as priorities for implementation.

Cognitive functions: visuo-spatial perceptions

Assess the effect of neglect on functional tasks such as mobility dressing, eating and using an electrically powered wheelchair using standardised assessments and behavioural observation.

Sensory functions: visual field functions

Offer eye movement therapy to people with hemianopia.

Digestive system functions: swallowing

Offer swallowing therapy at least three times a week for people with dysphagia. Swallowing therapy could include compensatory strategies, exercises and postural advice.

Communication: conversation

Consider providing training in communication skills (slowing down, not interrupting, using communication props, gestures, drawing) to the conversation partners of people with aphasia.

Mobility: hand and arm: functional electrical stimulation

Do not routinely offer functional electrical stimulation for the hand and arm.

Mobility: walking: ankle/foot orthoses

Consider offering ankle-foot orthoses to people who have difficulties with swing-phase foot clearance and/or stance-phase control that affect walking.

Employment

Return to work issues should be identified at onset of stroke, and reviewed regularly and managed actively.¹

¹ See also: Managing long-term sickness absence and incapacity to work. NICE public health guidance 19 (2009)

Service delivery: early supported discharge

Offer early supported discharge to patients who are able to transfer independently or with the assistance of one person. Early supported discharge should be considered a specialist stroke service and consist of the same intensity and skill mix available in-hospital without delay in delivery.

Service delivery: intensity of rehabilitation

Offer at least 45 minutes of each active rehabilitation therapy for a minimum of 5 days per week to people who have the capacity to participate, and where the individual and the rehabilitation team can identify functional goals that can be achieved.

Service delivery: intensity of speech and language therapy

Provide speech and language therapy for people with aphasia both individually and in groups to meet identified needs.

Guidance

Life after stroke can be regarded as a series of transitions, in functional terms from dependence to increasing independence, and from service to service, as the individual progresses from acute hospital to rehabilitation settings, and finally to reintegration into the community.

Stroke rehabilitation aims to optimise activity and participation in everyday activities. The rehabilitation team will comprise of a range of expertise from the health and care sectors, who will deliver a package of rehabilitation and care that is relevant and applicable for that individual across a range of settings.

There is a clear consensus about the rehabilitation process which includes assessment to identify the nature and extent of the patient's problems and the factors relevant to their resolution, patient centred goal setting, and the delivery of interventions which aim to restore lost function or compensate for lost function when it cannot be restored, and to support the individual to maintain quality of life.

1.1 *Cognitive functions*

1.1.1 Visuo-spatial perceptions

- 1.1.1.1 Assess the effect of neglect on functional tasks such as mobility dressing, eating and using an electrically powered wheelchair using standardised assessments and behavioural observation.
- 1.1.1.2 Use interventions for neglect that focus on the relevant functional tasks taking into account the underlying impairment (for example, 'top down' to target cognitive impairment by encouraging the patient to scan to the neglected side, using activation techniques or bright lights on the left of a page and 'bottom up' to target task performance such as dressing, or altering the perceptual input using prism glasses)

1.1.2 Memory

1.1.2.1 Assess memory and associated cognitive functions (such as executive functions) particularly where impairments in memory affect everyday activity.

1.1.2.2 Use interventions for memory and associated cognitive functions that focus on the relevant functional tasks taking into account the underlying impairment

- Interventions used in practice include the following:
 - increasing awareness
 - enhancing learning (making associations, use of mnemonics, errorless learning, internal strategies related to encoding information such as PQRSST, preview, question, read, state, test),
 - external aids (for example, diaries, lists, calendars and alarms)
 - environmental strategies (routines, and environmental prompts)

1.1.3 Attention

1.1.3.1 Assess attention and associated cognitive functions (such as executive function) using standardised assessments and use behavioural observation to evaluate the impact of the impairment in attention on functional tasks.

1.1.3.2 Use Interventions for attention and associated cognitive functions that focus on the relevant functional tasks taking into account the underlying impairment. E.g. minimising distractions and providing prompts.

1.2 Sensory functions

1.2.1 Visual fields

1.2.1.1 Assess all patients for visual field defects.

- 1.2.1.2 Offer eye movement therapy to people with hemianopia.
- 1.2.1.3 Consult the Driving and Vehicle Licensing Agency (DVLA) regulations (DVLA) when advising people with visual field loss about driving,

1.3 *Digestive system functions*

1.3.1 Swallowing

- 1.3.1.1 Assessment of swallowing should be undertaken in line with the recommendation made in the NICE Stroke guideline (68)
- 1.3.1.2 Offer swallowing therapy at least three times a week for people with dysphagia. Swallowing therapy could include compensatory strategies, exercises and postural advice.
- 1.3.1.3 Healthcare professionals with relevant skills and training in the diagnosis, assessment and management of swallowing disorders should regularly monitor and reassess people with dysphagia who are having modified food and liquid until they are stable.²

² This recommendation is from Nutrition support in adults: oral nutrition support, enteral tube feeding and parenteral nutrition. NICE clinical guideline 32 (2006). Available from <http://guidance.nice.org.uk/CG32>

1.4 *Movement related functions*

1.4.1 **Muscle power function**

1.4.2 Provide physiotherapy to people after stroke, who have weakness (face, upper limb, trunk and lower limb), sensory disturbance or balance difficulties which impact on function.

1.4.3 Physiotherapists with the relevant skills and training in the diagnosis, assessment and management of movement in people with stroke should regularly monitor and treat people with movement difficulties until they are able to maintain or progress function either independently or with assistance from others (rehabilitation assistants, carers, fitness instructors etc.)

1.4.3.1 Consider strength training for people with limb weakness. For example progressive strength building through increasing repetitions of body-weight activities, weights or resistance on machines such as stationary cycles.

1.5 *Communication*

1.5.1 **Conversation**

1.5.1.1 Consider providing training in communication skills (slowing down, not interrupting, using communication props, gestures, drawing) to the conversation partners of people with aphasia.

1.6 *Mobility*

1.6.1 **Hand and arm: upper limb orthoses**

1.6.1.1 Do not routinely offer wrist and hand splinting after acute stroke.

1.6.2 **Hand and arm: functional electrical stimulation for the upper limb**

1.6.2.1 Do not routinely offer functional electrical stimulation for the hand and arm.

- 1.6.2.2 Ensure that functional electrical stimulation therapy is guided by a qualified rehabilitation professional if a trial of treatment is considered appropriate.

For guidance on functional electrical stimulation for the lower limb see:
Functional electrical stimulation for drop foot of central neurological origin.³

1.6.3 Hand and arm: constraint-induced movement therapy

- 1.6.3.1 Consider constraint-induced movement therapy for patients with movement of 20 degrees of wrist extension and 10 degrees of finger extension. Be aware of potential adverse events (such as falls, low mood and fatigue).

1.6.4 Repetitive task training

- 1.6.4.1 Consider repetitive task training on a range of tasks for upper limb weakness (such as reaching, grasping, pointing, moving and manipulating objects) and lower limb weakness (such as sit-to-stand, transfers, walking and using stairs)

1.6.5 Walking: treadmill training

- 1.6.5.1 Offer walking training to address endurance and speed to people who are able to walk with or without assistance.
- 1.6.5.2 Consider treadmill training with or without body weight support as one option of walking training for people after stroke who are able to walk with or without assistance.

1.6.6 Walking: electro-mechanical gait training

Electromechanical gait training should only be offered within the context of a research study.

³ Available from: <http://guidance.nice.org.uk/IPG278/Guidance/pdf/English>

1.6.7 Walking: ankle-foot orthoses

- 1.6.7.1 Consider offering ankle-foot orthoses to people who have difficulties with swing-phase foot clearance and/or stance-phase control that affect walking.
- 1.6.7.2 Assessment and treatment with an ankle-foot orthoses should be performed in the context of a rehabilitation programme and performed by qualified professionals.

1.7 Domestic life

1.7.1 Self care

- 1.7.1.1 Provide occupational therapy to people after stroke, to address personal activities of daily living.
- 1.7.1.2 Occupational therapists with the relevant skills and training in the analysis and management of activities of daily living should regularly monitor and treat people with difficulties in activities in daily living until they are stable or they are able to progress independently.
- 1.7.1.3 Occupational therapy to address activities of daily living may consist of restorative strategies or compensatory approaches

Restorative strategies may include: encouraging the patient with neglect to attend to the neglected side, encouraging the patient with arm weakness to incorporate both arms, supporting an appropriate dressing routine for patients with sequencing problems.

Compensatory strategies may include: teaching the patient to dress one handed or using devices such as teaching the patient to use devices such as bathing and dressing aids.
- 1.7.1.4 Ensure appropriate equipment is provided to patients once discharged from hospital whatever the setting including care homes.

- 1.7.1.5 Assessment for equipment, and training formal and informal carers in the use of equipment is an integral part of provision and should be performed by an appropriately qualified health professional.

1.8 Major life areas

1.8.1 Employment

- 1.8.1.1 Return to work issues should be identified at onset of stroke, and reviewed regularly and managed actively.⁴

- 1.8.1.2 Key elements of successful management include:

- identifying the physical, cognitive, communication and psychological demands of the job. For example: multi-tasking by answering emails and telephone calls in a busy office,
- identifying the impairments impacting on work performance. For example: physical limitations, anxiety, fatigue preventing attendance at a full day at work, cognitive impairments preventing multitasking and communication deficits.
- tailoring an intervention. For example, teaching strategies to support multi-tasking or memory difficulties, teaching the use of voice activated software for people with difficulty typing, and delivery of work simulations.
- educating about the equality act and support available for example: access to work scheme.
- work place visits with liaison with the employer to establish reasonable accommodations such as provision of equipment, and graded return to work.

⁴ See also: Managing long-term sickness absence and incapacity to work. NICE public health guidance 19 (2009)

1.9 Support and relationships

1.9.1 Supported information giving

- 1.9.1.1 Working with the person and their families, identify their information needs and develop a strategy to deliver them, taking account of specific impairments such as aphasia and cognitive impairments, and pacing information to the individual's emotional adjustment.
- 1.9.1.2 Provide information that reflects the patient's needs and priorities, family expectations, and the local resources provided by leisure, housing, social services and the voluntary sector to support these.
- 1.9.1.3 Review Information needs at the start and completion of any intervention period.

1.9.2 Psychological therapies

- 1.9.2.1 Assess mood in the context of neuropsychological functioning (such as comprehension) in people after stroke, particularly when emotional functioning affects neuro-rehabilitation. Interventions will depend on the type or complexity of the person's neuropsychological presentation and relevant personal history.⁵

1.10 Service delivery

1.10.1 Early supported discharge

- 1.10.1.1 Offer early supported discharge to patients who are able to transfer independently or with the assistance of one person. Early supported discharge should be considered a specialist stroke service and consist of the same intensity and skill mix available in-hospital without delay in delivery.
- 1.10.1.2 Prior to discharge from hospital to home, a home visit should be undertaken for all patients who remain dependent in some activities

⁵ See also: Depression in adults with a chronic health problem. NICE guideline 91 (2009). Available from: <http://guidance.nice.org.uk/CG91>

to identify additional support required, and to ensure a safe and enabling environment

1.10.1.3 Hospitals should have clear systems in place to ensure:

- Patients and their families are involved in planning for discharge and carers receive training in care. For example, moving, handling and dressing.
- patient and carers feel adequately informed, prepared and supported to carry out care
- Appropriate agencies (including GPs) are informed before discharge and an agreed health and social care plan is in place, essential equipment has been delivered, including wheelchairs if needed, and patients know who to contact if difficulties arise.

1.10.2 Intensity of rehabilitation

1.10.2.1 Offer at least 45 minutes of each active rehabilitation therapy for a minimum of 5 days per week to people who have the capacity to participate, and where the individual and the rehabilitation team can identify functional goals that can be achieved.

1.10.2.2 Consider offering more than 45 minutes of each active rehabilitation therapy 5 days per week to people who have the capacity to participate and continue to make functional gains, and where the individual and rehabilitation team can identify functional goals that can be achieved.

1.10.3 Intensity of speech and language therapy

1.10.3.1 Refer patients with suspected aphasia to speech and language therapy for detailed analysis of language deficits and their impact on verbal and written communication

1.10.3.2 Provide speech and language therapy for people with aphasia both individually and in groups to meet identified needs.

1.10.3.3 Speech and language therapies should aim to:

- help the person to use and enhance remaining abilities.
- reduce identified specific language impairments.
- compensate for language problems.
- learn other methods of communicating.
- coach others (family, health and social care staff) to learn effective communication skills to maximise the aphasic patient's competence.
- help the person suffering from aphasia and their families or carers to adjust to a communication impairment.
- re-establish identity
- access information

1.10.3.4 Aphasia therapy should be led by an appropriately qualified speech and language therapist.

2 Notes on the scope of the guidance

NICE guidelines are developed in accordance with a scope that defines what the guideline will and will not cover. The scope of this guideline is available from [www.nice.org.uk/\[NICE to add details\]](http://www.nice.org.uk/[NICE to add details]).

How this guideline was developed

NICE commissioned the National Clinical Guideline Centre to develop this guideline. The Centre established a Guideline Development Group (see appendix A), which reviewed the evidence and developed the recommendations. An independent Guideline Review Panel oversaw the development of the guideline (see appendix B).

There is more information about how NICE clinical guidelines are developed on the NICE website (www.nice.org.uk/HowWeWork). A booklet, 'How NICE clinical guidelines are developed: an overview for stakeholders, the public and the NHS' (fourth edition, published 2009), is available from NICE publications (phone 0845 003 7783 or email publications@nice.org.uk and quote reference N1739).

3 Implementation

NICE has developed tools to help organisations implement this guidance (see [www.nice.org.uk/guidance/CG\[XXI\]](http://www.nice.org.uk/guidance/CG[XXI])).

4 Research recommendations

The Guideline Development Group has made the following recommendations for research, based on its review of evidence, to improve NICE guidance and patient care in the future.

4.1 *Upper limb functional electrical stimulation*

What is the clinical and cost effectiveness of functional electrical stimulation (FES) as an adjunct to rehabilitation to improve hand and arm function in people after stroke from early rehabilitation to use in the community setting?

Why this is important

After stroke an estimated 30–70% of people have reduced or no use of one arm and hand. FES has long been thought to be a possible useful adjunct to rehabilitation of arm and hand function. FES is believed to enhance the training effect of active, task-specific and strengthening rehabilitation programmes. However, the body of evidence to date does not help the clinician or patient to know if FES will be an effective addition to rehabilitation for them. Linked-series studies are needed to:

- identify the dose, practice parameters and rehabilitation programme content needed to effect change in hand and arm function with FES, and
- characterise the clinical profiles of people who will benefit from FES in early, middle, and late stages of the stroke pathway. Primary outcome measures should be the individual's assessment of improvement in function. Secondary outcomes should include measures of impairment, function, and quality of life, which should reflect people with low, middle and high-functioning upper limbs.

4.2 *Improving communication in people with aphasia after stroke*

What is the clinical and cost effectiveness of intensive speech and language therapy for people with aphasia after stroke versus standard low-intensity speech and language therapy, on measures of language and social communication?

Why this is important

The loss of the ability to understand or express language (aphasia) after stroke affects up to one third of stroke survivors. This can have devastating effects on the person and their families. Research suggests that aphasia recovery, both acute and long term, is improved with intensive speech and language therapy. In stroke rehabilitation units, the standard for targeted speech and language therapy is five sessions of 45 minutes of therapy per week (Royal College of Physicians 2004). However, within clinical practice there is variation in meeting this standard.

There is a lack of robust evidence indicating optimum levels of speech and language therapy to enhance recovery of language and communication function.

The range of interventions used in speech and language therapy for aphasia is broad, with no agreed definition of 'functional communication' therapy. Interventions range from individually tailored programmes addressing specific language impairments and communication behaviours to interventions designed to train relevant communication partners or address communication barriers in the external environment. Interventions have been delivered individually and in groups and by trained speech and language therapists or by unskilled staff under the supervision of trained speech and language therapists.

Further multicentred research should be undertaken to determine whether intensive speech and language therapy for people with aphasia after stroke is more clinically and economically effective at improving outcomes than

standard, low intensity speech and language therapy. The research will need to be pragmatic with clear definitions of:

- what constitutes high-intensity versus low-intensity therapy
- the specific nature of the therapeutic intervention and
- the skill levels of those chosen to administer therapy.

The level of intensity to be considered should be more than 8 hours of intervention per week and the duration of intervention should be no less than 2–3 months.

The primary outcomes should be improved scores on measures of language and social communication. The trial will need to use measures for evaluating change in social interaction and social engagement as well as improved performance on language function and the ability to perform basic communication activities. Secondary outcome measures should include a qualitative study examining the perceptions of people with aphasia and their families and carers to evaluate the effect of therapy on psychosocial wellbeing and self efficacy.

4.3 *Intensive rehabilitation*

What is the clinical and cost effectiveness of intensive rehabilitation (6 hours per day) versus moderate rehabilitation (2 hours per day) after stroke on activity, participation and quality-of-life outcomes.

Why this is important

Rehabilitation aims to maximise activity and participation and minimise distress for both patient and carer. The physical and mental capacity to participate in rehabilitation varies widely from person to person. Some people may not be able to participate at all; others who are fit may be able to tolerate 6 hours of therapy a day. The latter tend to be younger and the potential long-term cost benefits of even small changes in function may be significant.

Evidence suggests that increasing rehabilitation intensity early after stroke results in improved outcomes, but this evidence for this is not robust. Previous

studies comparing different levels of intensity use rehabilitation inputs that are less than the current recommended levels in the NICE stroke quality standard.

Should it be shown that increasing the intensity of input in people who are able to participate results in functional and cost benefits stroke rehabilitation services and funding tariffs should be reviewed.

4.4 Vocational therapy – return to work

What knowledge and skills do healthcare professionals need to help patients return to work?

- What transferable models exist that allow effective inter-agency working between health, the Department for Work and Pensions, independent and voluntary sector agencies?.

Why this is important

Estimates of work return vary between 19% and 73% in people who have had a stroke. Surveys of vocational rehabilitation services estimate that services to support people return to work (vocational rehabilitation) after a stroke meets the needs of less than 10% of the population. As work contributes to adult identity, confers financial benefits and status, can improve quality of life, and reduces ill health, supporting return to work after stroke should be a priority for health services and regarded as a marker of successful rehabilitation.

Getting disabled people back to work is a Government priority. In recent years, several policy directives have driven a change in thinking about the relationship between work and health. Lord Darzi (2007) recognised the need for health services that enable people to remain healthy, support people to stay healthy at work and help those who are struggling with ill health to get back to appropriate work faster.

In 'Health, work and well-being' (HM Government, 2005), 'Improving life chances for disabled people' (PMSU, 2005), 'Building capacity for work: a UK framework for vocational rehabilitation' (2004) and the Green Paper: 'A new deal for welfare: empowering people to work' (2006) plans were outlined for ensuring disabled people were given full opportunities and choices to improve

their quality of life, including being able to work. In response to this, the Department for Work and Pensions established several initiatives intended to support disabled people coming off benefits and back into work. These included 'Pathways to work' (which offers people making new claims for benefits the opportunity to receive payment while seeking further employment) and the Condition Management Programme (CMP) (for those moving onto longer term benefits). Although Pathways was shown to positively affect employment in pilot areas (DWP, 2006a) neither it nor the CMP are thought to meet the needs of people with complex physical and cognitive disabilities, such as those who have had a stroke (Frank and Thurgood, 2006; Radford and Walker, 2008; Ford et al, 2008).

Supporting policy and clinical directives (National Stroke Strategy, 2007 (Department of Health, 2007); National Clinical Guidelines for Stroke, 2008; NICE Multiple Sclerosis Guidelines, 2004; Aragorn and Kings, 2010; Department of Health, 2005; RCP/BSRM, 2004; BSRM 2010) have called for clinical services that support people with long-term neurological conditions remaining economically active. Many of them have acknowledged the need for health-based services that address the unmet vocational needs of people with long-term neurological conditions, and call for cross-partnership working between health, social care, the Department for Work and Pensions and other agencies in the third and independent sector to bridge service gaps and ensure that people can access services when they need them (British Society of Rehabilitation Medicine, 2010). Research is needed to identify the most appropriate structures and processes to ensure joined-up working between NHS, Department for Work and Pensions and independent and voluntary sector providers.

Current NICE guidance suggests that while there is a degree of consensus about the nature of interventions for return to work for people with neurological diseases, there are few resources to deliver these interventions. There is no direct randomised controlled trial evidence that vocational rehabilitation services for stroke leads to an improvement in work return. However, given the current consensus it may be regarded as unethical to randomly assign a

person who has had a stroke to a control group. For this reason it may be more appropriate to ensure staff are adequately skilled and the services are developed in partnership with Department for Work and Pensions, and with independent and voluntary services.

Many health care professionals do not feel adequately skilled in this area. The development of competencies for healthcare professionals could form the basis of postgraduate development and training so that clinicians employed in the NHS had the scope to undertake this work. However, there may remain a resource problem which would need to be addressed. Thus determining how services can be structured so that health services can work effectively with services funded by the Department for Work and Pensions, independent providers and the voluntary sector would be useful.

4.5 *Psychological therapies*

Which neuropsychological interventions provide better outcomes for identified subgroups of stroke patients and their families at different stages of the stroke pathway?

Why this is important:

There are many well-established studies showing that post stroke mood disorders (eg post stroke depression and anxiety) occur with high frequency and may occur at any point along the rehabilitation pathway, causing distress to patients and carers and adversely affecting outcome. Cognitive and communication impairments interact with mood and compound difficulties by often compromising individuals' abilities to participate in standard evidenced-based psychological therapies. The need for psychological input for stroke patients is well recognised (the National Service Framework for Long-term Neurological Conditions) however the current literature does not provide robust evidence about which psychological interventions will be most effective for different subgroups of patients.

5 Other versions of this guideline

5.1 *Full guideline*

The full guideline, 'Stroke rehabilitation: the rehabilitation and support of stroke patients', contains details of the methods and evidence used to develop the guideline. It is published by the National Clinical Guideline Centre, and is available from our website ([www.nice.org.uk/guidance/CG\[XX\]/Guidance](http://www.nice.org.uk/guidance/CG[XX]/Guidance)).

5.2 *NICE pathway*

The recommendations from this guideline have been incorporated into a NICE pathway, which is available from [http://pathways.nice.org.uk/pathways/\[xxx\]](http://pathways.nice.org.uk/pathways/[xxx])

5.3 *'Understanding NICE guidance'*

A summary for patients and carers ('Understanding NICE guidance') is available from [www.nice.org.uk/guidance/CG\[XX\]/PublicInfo](http://www.nice.org.uk/guidance/CG[XX]/PublicInfo)

For printed copies, phone NICE publications on 0845 003 7783 or email publications@nice.org.uk (quote reference number N[XXXX]).

We encourage NHS and voluntary sector organisations to use text from this booklet in their own information about [condition].

6 Related NICE guidance

Published

Stroke. NICE clinical guideline 68 (2008). Available from: www.nice.org.uk/guidance/CG68

Neuropathic pain – pharmacological management. NICE clinical guideline 96 2010. Available from: www.nice.org.uk/guidance/CG96

Depression in adults (update). NICE clinical guideline 90 (2009). Available from: www.nice.org.uk/guidance/CG90

Depression in adults with a chronic physical health problem. NICE clinical guideline 91 (2009). Available from: www.nice.org.uk/guidance/CG91

Nutrition support in adults: oral nutrition support, enteral tube feeding and parenteral nutrition. NICE clinical guideline 32 (2006). Available from www.nice.org.uk/guidance/CG32

Anxiety (partial update). NICE clinical guideline 113 (2011). Available from: www.nice.org.uk/guidance/CG113 .

Falls: the assessment and prevention of falls in older people. NICE clinical guideline 21 (2004). Available from: www.nice.org.uk/guidance/CG21

Faecal incontinence NICE clinical guideline 49 (2007)
www.nice.org.uk/guidance/CG49

Related NICE Public Health Guidance:

Managing long-term sickness and incapacity for work. NICE public health guidance 19 (2009). Available from: www.nice.org.uk/guidance/PH19

NICE Related Guidance currently in development: [XXX]

Incontinence in neurological disease NICE clinical guideline (publication expected October 2012)

Patient experience in generic terms. NICE clinical guideline (publication expected October 2011)

7 Updating the guideline

NICE clinical guidelines are updated so that recommendations take into account important new information. New evidence is checked 3 years after publication, and healthcare professionals and patients are asked for their views; we use this information to decide whether all or part of a guideline needs updating. If important new evidence is published at other times, we may decide to do a more rapid update of some recommendations. Please see our website for information about updating the guideline.

Appendix A: The Guideline Development Group, National Collaborating Centre and NICE project team

Guideline Development Group

Dr. Diane Playford (Chair)

Senior Lecturer, UCL Institute of Neurology

Dr. Khalid Ali

Senior Lecturer in Geriatrics, Brighton and Sussex Medical School

Mr. Martin Bird

Patient and Carer Representative

Mr. Robin Cant

Patient Representative

Ms. Sandra Chambers

Clinical Specialist, Stroke and Neurorehabilitation, Physiotherapy Department,
Guy's and St. Thomas' Hospital NHS Foundation Trust

Ms. Louise Clark

Occupational Therapist, Stroke Rehabilitation Unit, Christchurch Hospital
Stroke Services, Royal Bournemouth and Christchurch Foundation Hospital
Trust

Dr. Avril Drummond

Deputy Director, Trent Local Research Network for Stroke

Ms. Helen E. Hunter

Clinical Specialist Neurophysiotherapist, Northumberland Care Trust

Prof. Anne Forster

Professor of Stroke Rehabilitation, Institute of Health Sciences, University of
Leeds and Bradford Institute for Health Research

Dr. Kathryn Head

Principal Speech and Language Therapist, Stroke service, Cwm Taf Health Board, South Wales

Ms. Pamela Holmes

Practice Development Manager, Social Care Institute for Excellence, Social Care Institute for Excellence

Dr. Najma Khan-Bourne

Chartered Clinical Psychologist in Stroke and Clinical Lead for Neuropsychological Neurorehabilitation, Friends Stroke Unit, Kings College Hospital NHS Foundation Trust

Dr. Keith MacDermott

General Practitioner, (Retired April 2010), Drs Price and partners, York

Dr. Rory O'Connor

Senior Lecturer, Academic Department of Rehabilitation Medicine, University of Leeds

Ms. Sue Thelwell

Service Development Manager, Coventry and Warwickshire Cardiovascular Network

National Clinical Guideline Centre

Dr Angela Cooper

Senior Research Fellow until July 2010

Ms. Tamara Diaz

Project Manager

Ms. Lina Gulhane

Senior Information Scientist

Ms. Kate Lovibond

Senior Health Economist from April 2011

Dr. Antonia Morga

Health Economist until April 2011

Dr. Jonathan Nyong

Research Fellow from Sept 2010

Ms. Gill Ritchie

Guideline Lead

Dr. Grammati Sarri

Senior Research Fellow from January 2011

Ms. Pauline Turner

Research Fellow until September 2010

NICE project team

To be completed by NICE

[Name; style = Unnumbered bold heading]

Associate Director/Programme Director/Centre for Clinical Practice Director

Delete as appropriate

[Name; style = Unnumbered bold heading]

Guideline Commissioning Manager

[Name; style = Unnumbered bold heading]

Guideline Coordinator

[Name; style = Unnumbered bold heading]

Technical Lead

[Name; style = Unnumbered bold heading]

Health Economist

[Name; style = Unnumbered bold heading]

Editor

Appendix B: The Guideline Review Panel

The Guideline Review Panel is an independent panel that oversees the development of the guideline and takes responsibility for monitoring adherence to NICE guideline development processes. In particular, the panel ensures that stakeholder comments have been adequately considered and responded to. The panel includes members from the following perspectives: primary care, secondary care, lay, public health and industry.

NICE to add

[Name; style = Unnumbered bold heading]

[job title and location; style = NICE normal]

Reference List

- 1 Scarborough P, Peto V, Bhatnagar P, et al. Stroke Statistics. UK: British Heart Foundation & The Stroke Association; 2009.**
- 2 Bhatnagar P, Scarborough P, Smeeton NC, et al. The incidence of all stroke and stroke subtype in the United Kingdom, 1985 to 2008: a systematic review. BMC Public Health 2010;10:539.**