

National clinical guidelines for stroke

Physiotherapy-specific guidelines

Background

The National Clinical Guidelines for Stroke (NCGS) were developed by the Intercollegiate Working Party (IWP) for Stroke, and first published in March 2000. The stimulus was the burden of stroke on the NHS and concern that standards of service varied widely around the country.

The guidelines cover the management of patients with transient ischaemic attack and acute stroke from onset, through rehabilitation and secondary prevention to the longer term, and directed primarily at practising clinicians involved in the diagnosis and management of patients with stroke. Their aim is to help clinicians make the best decisions for each patient, using the current evidence-based practice. They are centred on the more common clinical problems faced in day-to-day practice, and are therefore also intended to be used by all professions, in all settings and at all points in the management of the patient.

The NCGS is a dynamic document that is updated in the light of new evidence. The Chartered Society of Physiotherapy (CSP) has formed a working party to assist the two physiotherapy representatives, Sheila Lennon and Ralph Hammond, in gathering and interpreting this evidence. The members of the working party are: Ann Ashburn, Steve Badger, Jane Burridge, Fiona Cramp, Val Hopwood, Louise Johnson, Val Pomeroy, Davina Richardson and Sarah Tyson. The following guidelines have been extracted from the full document and have direct implications for physiotherapy. However, **it is recommended that all physiotherapists read the NCGS in their entirety**. The full document can be obtained from: www.rcplondon.ac.uk/pubs/ceeu_stroke_home.htm.

Context and use

The guidelines should be taken as statements to inform the clinician, not as rigid rules. Guidelines cannot cover every eventuality, with new evidence published every day. These guidelines will be kept up-to-date on a regular basis, reflecting comments from practising clinicians and the development of new evidence, so feedback is most welcome. Each guideline is followed by a letter (A, B or C) to indicate the strength of recommendation supporting it:

Type of evidence	Grade of recommendation
Meta-analysis of randomised controlled trials (RCTs) <i>or</i> At least one RCT	A
At least one well designed, controlled study but without randomisation <i>or</i> At least one well designed, quasi-experimental study <i>or</i> At least one well designed, non-experimental descriptive study (eg comparative, correlation or case study)	B
Expert committee reports, opinions <i>and/or</i> experience of respected authorities	C



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Guidelines with direct implications for physiotherapy practice

Approaches to rehabilitation

Use of assessments/measures

- ▶ Where possible and available, clinicians should use assessments or measures that have been studied in terms of validity and reliability (C)
- ▶ Patients should be reassessed at appropriate intervals (C)

Team work

- ▶ All members of the healthcare team should work together with the patient and family, using an agreed therapeutic approach (B)
- ▶ All staff should be trained to place patients in positions that reduce the risk of complications such as contractures, respiratory complications and pressure sores (B)

Goal setting

- ▶ Goals should be meaningful, challenging but achievable (B), and both short- and long-term (C)
- ▶ Goal setting should involve the patient (B), and the family if appropriate (C)
- ▶ Goals should be set at the team level as well as at the level of an individual clinician (C)
- ▶ Judging progress against goals set (goal attainment scaling) may be helpful (B)

Underlying approach to therapy

- ▶ Any current therapeutic approach to movement re-education should be used to improve function (A)
- ▶ A task-specific, rather than an impairment-focused, approach should be used for the specific objectives of (i) improving reaching for objects and (ii) increasing walking speed (B)
- ▶ Patients should be given as much opportunity as possible to practise tasks (B)

Intensity/duration of therapy

- ▶ Patients undergoing rehabilitation should be treated by a therapist each working day (B)
- ▶ While they need therapy, patients should receive as much as can be given and is tolerable (A)

Carers and families

- ▶ The needs of the family to be given information, to be involved in taking decisions and making plans, and to be given support must be considered from the outset (C)
- ▶ Stroke services must be alert to the likely stress on carers, specifically recognising the stress associated with 'hidden' impairments (eg cognitive loss, urinary incontinence, irritability) (B)
- ▶ Information should be given to families on the nature of stroke and its manifestations, and on relevant local and national services (A)

Early disability assessment and management

Multidisciplinary general assessment: rehabilitation referral

- ▶ A multidisciplinary assessment using a formal procedure or protocol should be undertaken and documented in the notes within five working days of admission (A)

- ▶ The protocol should include assessment of the patient's needs in relation to moving and handling within 48 hours of admission (C)

Swallowing, feeding and nutrition

- ▶ Patients' needs should be assessed for the most suitable posture and equipment to facilitate feeding (C)

Prevention of complications

Positioning Staff should position patients to minimise the risk of complications such as contractures, respiratory complications, shoulder pain and pressure sores (C)

Venous thromboembolism Mobilisation and optimal hydration should be maintained as far as possible from the outset (C)

Bladder and bowel management Units should have established assessment and management protocols for both urinary and faecal incontinence and constipation (B)

Rehabilitation interventions

Psychological impairment: mood disturbance

- ▶ Patients should be given information, advice and the opportunity to talk about the impact of illness upon their lives (B)
- ▶ Patients' psychosocial needs should be assessed (C)

Motor impairment: improving motor control (conventional)

- ▶ A physiotherapist with expertise in neurodisability should co-ordinate therapy to improve movement performance of patients with stroke (C)

Strength training

- ▶ Resisted exercise should be considered in order to improve motor control in targeted muscles (B)

Improving motor control

Biofeedback

- ▶ Biofeedback systems should not be used on a routine basis (A)

Functional electrical stimulation (FES)

- ▶ FES should not be used routinely after stroke (A)
- ▶ FES should be considered in certain circumstances (eg to improve ankle dorsiflexion and gait performance) (A)

Spasticity

Assessment, therapy and use of drugs

- ▶ After stroke, spasticity seen in the arm or leg should be treated if causing symptoms, using physical treatments and possibly drugs, though the functional benefit is uncertain (B)
- ▶ Spasticity should not limit the use of strength training (C)

Botulinum toxin

- ▶ In patients with disabling or symptomatically distressing spasticity:
 - injection of botulinum toxin should be considered to reduce tone and/or increase the range of joint motion (A)
 - additional electro-stimulation should be considered for increasing the effectiveness of botulinum toxin (A)

Sensory impairment and pain – sensory disturbance: controlling after stroke

- ▶ All patients should be:
 - assessed for pain on a regular basis (C)
 - treated actively in accordance with the patient's wishes (C)

Shoulder pain

- ▶ To prevent shoulder pain, the following interventions should be considered:
 - avoidance of overhead arm slings, which encourage uncontrolled abduction (A)
 - use of foam supports (A)
 - education of staff and carers about correct handling of the hemiplegic arm (B)
- ▶ For established shoulder pain:
 - simple interventions should be used first (eg non-steroidal anti-inflammatory analgesia) (C)
 - if simple measures do not work, treatment should include high-intensity transcutaneous electrical nerve stimulation (TENS) (A)

Sensory stimulation: acupuncture and TENS

- ▶ Acupuncture and routine TENS (for improving muscle control) should be used only in the context of ongoing trials (A)

Gait re-education

- ▶ Treadmill training with partial (<40%) body weight support should be considered as an adjunct to conventional therapy in patients not walking at three months after stroke (A)
- ▶ Gait re-education to improve walking ability should be offered, though specific techniques cannot be recommended on the basis of evidence (B)

Activities of daily living (ADL)

- ▶ Patients with difficulties in ADL should be treated by a specialist multidisciplinary team (A)
- ▶ All patients must be given opportunities to practise personal ADL and, as appropriate, relevant domestic and community activities (C)
- ▶ Patients should be offered advice on, and treatment aimed to achieve, employment or wanted leisure activities as appropriate (C)

Equipment and adaptations

Personal aids

- ▶ The need for special equipment should be assessed on an individual basis and, once provided, evaluated on a regular basis (B)
- ▶ Patients should be supplied as soon as possible with all aids and equipment needed (A), with easy, quick access to any equipment that might increase independence (C)

- ▶ Decisions must take into account the patient's (and, if necessary, the family's) views and expectations (C)
- ▶ Ankle-foot orthoses benefit some patients (B); if supplied, they should be individually fitted (C)
- ▶ A walking stick may increase standing stability in patients with severe disability (B)

Appliances

- ▶ Patients at home or leaving hospital should be fully assessed to determine whether equipment or adaptations can increase safety or independence (A)
- ▶ Prescription of equipment and adaptations should be based on careful assessment of the patient and the physical and social environment in which they are to be used (B)
- ▶ All equipment supplied should have proven reliability and safety (C)
- ▶ The patient and/or carer should be thoroughly trained in the safe and effective use of any equipment supplied (C)
- ▶ The suitability and use of equipment should be reviewed over time as needs will change (B)
- ▶ All patients should be given a contact number for future advice or help with equipment (C)

Transfer back to the community: discharge planning

- ▶ Early hospital discharge should be considered only if:
 - there is a specialist stroke rehabilitation team in the community (A)
 - the patient is able to transfer safely from bed to chair (A)
- ▶ Early hospital discharge to generic (non-specialist) community services should not be undertaken (A)
- ▶ Carers should receive all necessary equipment and training in moving and handling, to be able to position and transfer the patient safely in the home environment (B)
- ▶ Hospital services should have a protocol and local guidelines for discharge (A), to check that before discharge occurs:
 - patients and families are prepared and fully involved (C)
 - general practitioners, primary healthcare teams and community social services departments are all informed (C)
 - all necessary equipment and support services are in place (C)
 - any continuing treatment required should be provided without delay by a specialist service in the community, day hospital or outpatients (A)
 - patients are given information about, and offered contact with, appropriate local statutory and voluntary agencies (C)

Long-term patient management: further rehabilitation after discharge

- ▶ Any patient with disability at six months or later after stroke should be assessed for a period of further targeted rehabilitation where appropriate (A)

Post-discharge social function

- ▶ Health and social services professionals should ensure that patients and their families are informed about statutory and voluntary organisations offering services specific to their needs (C)

Secondary prevention

- ▶ All patients should be given appropriate advice on lifestyle factors (eg not smoking, regular exercise, diet, avoiding excess alcohol, achieving a satisfactory weight, reducing the use of added salt) (C)

Service evaluation

Data collection

- ▶ All parties involved in assessing outcome should agree on the outcomes to be measured (C)
- ▶ Once agreed, suitable measures should be chosen, taking into account validity, reliability, relevance, simplicity and resource implications (C)

Audit tool

The multidisciplinary tool will be available from the RCP in 2002. The package will include a physiotherapy-specific audit tool.

Source

Intercollegiate Working Party for Stroke. *National Clinical Guidelines for Stroke*. London: Royal College of Physicians of London, 2000.

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