strokefoundation

Stop stroke. Save lives. End suffering.

Physiotherapy

Concise guidelines
Stroke rehabilitation and recovery

This summary is designed to provide a quick overview of the recommendations relevant to physiotherapists from the full *Clinical Guidelines for Stroke Rehabilitation and Recovery*. 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 the use of the term 'should' or 'may' has been used to indicate the strength of a recommendation, that is, 'should' is used to indicate a stronger recommendation whereas the use of 'could' reflects a weaker recommendation. These guidelines cover care ***after*** the first seven days. They should be used in conjunction with the *National Clinical Guidelines for Acute Stroke Management* which refers to the first seven days of care.

Discharge planning, transfer of care and integrated community care

2.1: Family and team meetings

The stroke team should meet regularly with the person with stroke and the family to involve them in management, goal setting and planning for discharge.

2.2: Pre-discharge needs assessment

Before discharge, people with stroke and their carers should have the opportunity to identify and discuss their post-discharge needs (eg. physical, emotional, social and financial) with the interdisciplinary team.

2.3: Care plans

People with stroke, their carers, the general practitioner, and community care providers should be involved with the interdisciplinary team in the development of a care plan that outlines care in the community after discharge, including the development of self-management strategies, provision of equipment and support services, and outpatient appointments.

2.4: Carer training

Therapists should provide specific training for carers before the person's discharge home. This should include training, as necessary, in personal care techniques, physical handling techniques, ongoing prevention and other specific stroke-related problems.

2.5: Liaison with community providers

The stroke survivor's general practitioner, other primary health professionals and community service providers should be involved in, and informed about, the discharge plans and agreed post-discharge management, as early as possible prior to discharge.

2.6: Post-discharge follow-up

b) Stroke survivors and their families should be followed up by a relevant member of the team after their discharge from a formal rehabilitation program.

2.7: General information and education

All stroke survivors and their families should be provided with timely, up-to-date information in conjunction with opportunities to learn via education from members of the interdisciplinary team and other appropriate community service providers. Simple information provision alone is not effective.

Management of the consequences of stroke

3.1 Sensorimotor impairments

3.1.1: Strength

One or more of the following interventions should be used for people who have reduced strength:

- progressive resistance exercises.
- electromyographic biofeedback in conjunction with conventional therapy
- electrical stimulation
- task-specific training

3.1.2: Sensation

One or more of the following interventions for increasing tactile and kinaesthetic sensation may be provided for people who have sensory impairments:

- sensory-specific training
- sensory-related training
- cutaneous electrical stimulation in conjunction with conventional therapy

3.1.3: Spasticity

a) One or more of the following interventions may be provided for people who have moderate to severe spasticity (ie, spasticity that interferes with a stroke survivor's activity or personal care):

- Botulinum Toxin A
- intrathecal baclofen
- dynamic splinting
- vibration
- stretch
- electromyographic biofeedback

b) Interventions to decrease spasticity should not be routinely provided for people who have mild to moderate spasticity (ie, spasticity that does not interfere with a stroke survivor's activity or personal care).

3.1.4: Contracture

a) For people at risk of developing contractures, management may include prolonged positioning of muscles in a maximum lengthened position to maintain range of motion.

b) Overhead pulley exercise should not be used to maintain range of motion of the shoulder.

c) For people who have contractures, management may include the following interventions to increase range of motion:

- electrical stimulation
- casting

3.1.5: Subluxation of the shoulder

a) For people with severe weakness who are at risk of developing a subluxed shoulder, management should include either or both of the following interventions to minimise subluxation:

- electrical stimulation
- firm support devices

b) For people who have developed a subluxed shoulder, management may include firm support devices to prevent further subluxation.

3.1.6: Shoulder pain

For people with severe weakness who are at risk of developing shoulder pain, management should include interventions to educate staff, carers and people with stroke to prevent trauma.

3.1.7: Swelling of the extremities

a) For people who are immobile, management may include the following interventions to prevent swelling in the hand and foot:

- electrical stimulation
- continuous passive motion in elevation
- pressure garments

b) For people who have swollen extremities, management may include the following interventions to reduce swelling of the hand and foot:

- electrical stimulation
- continuous passive motion in elevation

3.1.8: Cardiovascular fitness

Rehabilitation should include interventions to increase cardiovascular fitness once people have sufficient strength in the large lower limb muscle groups.

3.1.9: Falling

a) Multifactorial interventions provided in the community, including an individually prescribed exercise program, may be provided for people who are at risk of falling, in order to prevent or reduce the number and severity of falls.

3.2 Physical activity

3.2.1: Sitting

Supervised task-specific sitting practice should be provided for people who have difficulty sitting.

3.2.2: Standing up from a chair

Task-specific practice of standing up should be provided for people who have difficulty in standing up from a chair.

3.2.3: Standing

Task-specific standing practice with feedback may be provided for people who have difficulty standing.

3.2.4: Walking

a) One or more of the following interventions should be provided for people who can walk but with difficulty:

- joint position biofeedback with or without conventional therapy
- cueing of cadence
- treadmill with or without body weight support
- multichannel electrical stimulation in conjunction with conventional therapy
- task-specific training

b) Ankle-foot orthoses may be considered for people with persistent foot drop. If used it should be individually fitted.

3.2.5: Upper limb activity

One or more of the following interventions should be provided for people with difficulty using their upper limb:

- task-specific training
- joint position biofeedback in conjunction with conventional therapy
- robot-assisted reaching
- constraint-induced movement therapy

3.2.6: Amount of practice

a) Rehabilitation should be structured to provide as much practice as possible within the first six months after stroke.

b) Group therapy involving task-specific training or video self-modelling may be used to increase the amount of practice in rehabilitation.

3.12.5: Behaviour change

Every person with stroke 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:

- increase regular exercise
- joint position biofeedback in conjunction with conventional therapy

b) Interventions should be individualised and may be delivered using behavioural techniques (eg, counselling) via a group or on a one-to-one basis.

Living with stroke

4.1 Activity and participation in the community

4.1.2: ADL and exercise

People who are living in the community more than six months after their stroke should have access to interventions to improve fitness and mobility.

This summary is based on the *Clinical Guidelines for Stroke Rehabilitation and Recovery*, National Stroke Foundation 2005, which have been endorsed by the Australian Physiotherapy Association.

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