

Unit D516 Design, agree and adapt a physical activity programme with adults after Stroke

Introduction

Every year, over 150,000 people in the UK have a stroke. Most people affected are over the age of 65, but anyone can have a stroke, including children and even babies. A stroke is the third most common cause of death in the UK. It is also the single most common cause of severe disability. More than 250,000 people live with disabilities caused by stroke.

There is a desire, amongst clinicians and patients, to have ongoing access to physical activity for people who have had a stroke to assist secondary prevention, to maintain recovery and to maximise the long term effects of rehabilitation.

Advanced instructors who are responsible for designing, delivering, monitoring and evaluating structured, individualised physical activity programmes for patients/clients after stroke, must have knowledge, a range of appropriate skills that are aligned with current evidence-based, best practice guidelines. These instructors should have established close liaison with stroke rehabilitation services in their local areas and with relevant carers where appropriate and with agreement.

This unit is designed to cover the multi-factorial nature of stroke and its management, including the skills and knowledge required to prescribe safe and effective exercise programmes for this patient/client group on the basis of relevant information from assessment, diagnosis and treatment, as well as a sound understanding of the risk factors involved. There are particular challenges associated with the physical activity management of this client group, as they may have movement disorders associated with muscle weakness, paralysis, low or high muscle tone, sensory loss, walking and balance problems. They may also have issues with communication, understanding and mood, all of which may affect functional capacity and present barriers to participation in habitual physical activity. An understanding of the aims of rehabilitation and the potential effects of therapy led approaches, assessed through relevant outcomes, as well as the potential impact of relevant carers will inform and enable the exercise professionals involved to integrate the physical activity intervention for their clients.

The unit is divided into two parts. The first part describes the two things you have to do. These are:

D516.1 Design and agree a physical activity programme with patients/clients after stroke

D516.2 Deliver, review and adapt a physical activity programme with patients/clients after stroke

The second part covers the unit specific knowledge and understanding you must have.

Target Group

This unit is for advanced fitness instructors who plan, conduct and review programmes to address the needs of patients/clients after stroke (NB following medical discharge and/or on referral for exercise). They will normally be working without direct supervision.

Linked Units

This unit should only be attempted on successful completion of, or in conjunction with, units D437, D438, D439, C313, D440, A318 and D449.

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D516.1

Design and agree a physical activity programme with patients/clients after stroke

The National Standard

What you must do

To meet the national standard, you must:

1. establish an effective working relationship with the patient/client, relevant carers and appropriate health care professionals
2. collect, record and interpret **information** about your patients/clients after stroke using safe and appropriate risk assessment **methods**
3. stratify and manage the patient/client according to current risk assessment management guidelines and protocols
4. follow the correct procedures and protocols for working with health care professionals, including those for confidentiality
5. establish and agree the patient/client's readiness to participate and identify barriers to habitual physical activity
6. plan and agree goals that are appropriate to your patients/clients risk stratification and their current level of ability
7. plan and prepare objectives, activities and delivery methods that are appropriate to your patients/clients' risk stratification, goals and condition
8. design and agree a programme adapted to your patients/clients using relevant principles of training

What you must cover

This element covers the following:

a information

- 1 personal goals
- 2 referral form
- 3 informed consent to transfer medical information/participate
- 4 medical history and medication
- 5 functional capacity (including movement control) limitations
- 6 assessment of risk during exercise
- 7 current and previous physical activity history and preferences
- 8 social and psychological considerations

and the following:

b methods

- 1 reports
- 2 interview
- 3 questionnaires
- 4 observations
- 5 functional and psychological assessments
- 6 risk assessment and management

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D516.2

Deliver, review and adapt a physical activity programme with patient/clients after stroke

The National Standard

What you must do

To meet the national standard, you must:

1. assess progress, monitor and manage risk to patient/clients throughout the programme
2. manage medical complications and emergencies until appropriate medical help is available
3. deliver planned activities to your patients/clients after stroke, adapting and tailoring activities according to individual risk stratification needs, abilities and any assistance required
4. communicate and consult with patients/clients on issues to do with their physical activity programme and progress
5. provide appropriate attention to patients/clients with common co-morbidities
6. support patients/clients in a way which will promote sustained change in physical activity levels, including appropriate exit route(s) and involving relevant carers with agreement where appropriate
7. enable patients/clients in self-management, involving carers where appropriate and with agreement
8. monitor patients/clients' progress against agreed goals, adapt the programme accordingly and where appropriate, refer on to other health or exercise settings
9. provide ongoing reports to communicate outcomes to the appropriate health care and social care professionals

What you must cover

You must meet the standard opposite.

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What you must know and understand

To be competent in this unit, you must know and understand the following:

- K1 Government policy and published national guidelines for the prevention and management of Stroke.
- K2 Awareness of national agencies, organisations and literature relating to the prevention and management of Stroke.
- K3 Relevant medico-legal requirements.
- K4 How to interact appropriately with general practitioners, stroke consultants, physiotherapists, occupational therapists, other health care professionals and personnel involved and relevant carers, where appropriate and with agreement in the process of the prevention and management of Stroke.
- K5 Ensure patient/client information and consent, meeting recommended guidelines (e.g. Exercise Referral protocol standards, indicators and protocols), is received prior to advising, prescribing or instructing exercise.
- K6 The protocol to follow when dealing with patients/clients who have been transferred from a range of health settings and those who are self-referred.
- K7 Understand the importance of an agreed link with a named health professional from the secondary and/or primary care setting and relevant carer.
- K8 Barriers to communication with referred patients/clients after a stroke and the communication skills needed to overcome these, including relevant, agreed carers.
- K9 How to identify when to refer to other physical activity or health care professionals patients/clients whose relevant health risk factors fall outside the areas for which you are competent.
- K10 Ethical considerations involved in stroke prevention and management, including respecting inter-professional boundaries and patient/client confidentiality.
- K11 Methods of information collection and interpretation, appropriate storage of confidential records and management processes encountered in running exercise after stroke exercise sessions.
- K12 Current relevant structures of the National Health Service, the names and functions of different relevant medical organisations and service commissioners and providers.
- K13 Prevalence and consequences of stroke.
- K14 Risk factors for stroke.
- K15 How physical activity may influence these and other risk factors.
- K16 Related anatomy and physiology of the neurological, musculoskeletal, cardiovascular, and cerebrovascular systems.

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K17 Causes, presentation, diagnosis and treatment of the following:

- Ischaemic and haemorrhagic stroke
- Motor symptoms (e.g. altered muscle tone, hemiparesis, balance, co-ordination, dyspraxia)
- Sensory symptoms (e.g. neuropathic pain, fatigue, unilateral neglect, loss of/altered sensation)
- Speech and language and comprehension problems (e.g. expressive dysphasia, receptive dysphasia)

K18 Investigations for risk of secondary complications after stroke

- Monitoring hypertension
- Swallowing problems (dysphagia)
- Visual problems (homonymous hemianopia, visual intention)
- Mood (lability, clinical depression)
- Hemiplegic shoulder pain

K19 Investigations for causes of stroke (suspected/occurred)

- Blood tests (glucose, cholesterol, haemoglobin, renal, ESR)
- Brain scan (CT or occasionally magnetic resonance imaging)
- Electrocardiogram: ECG
- Cerebral blood flow
- Carotid Doppler
- Echocardiography

K20 Interventions for management of stroke:

- Medical
- Surgical
- Rehabilitation – Stroke Units
- Multi-factorial versus single interventions
- Individual versus population approaches

K21 The range of co-morbidities/medications and their exercise considerations.

K22 Components of stroke management within the clinical setting (Phases 1-3).

K23 Stratifying an individual's exercise risk after stroke, using tools validated in a variety of settings.

K24 Acute responses and chronic adaptations to aerobic endurance and muscular strength exercise and implications for individual with cerebrovascular disease.

K25 Beneficial effects of physical activity/exercises on stroke management.

K26 Contra-indications to exercise which need to be taken into account for the patient/client after stroke.

K27 Initial assessment including appropriate assessment of exercise level.

K28 On going screening process prior to each exercise session.

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- K29 How to set up and manage a safe physical activity environment relevant for a patient/client after stroke.
- K30 Both group and individual exercise programming principles for patients/clients after stroke.
- K31 Monitoring intensity methods.
- K32 Exercise considerations for patient/client with the following
- Other stroke-associated symptoms, incl. motor, sensory, impairments of speech, language and understanding, vision, swallowing, mood etc. as listed in K17
 - Additional conditions affecting exercise risk during exercise and movement performance – Cardiopulmonary disease, Parkinson's Disease, Osteoporosis, Osteoarthritis, Dementia
- K33 How to determine and adapt appropriate progressive physical activity programmes after stroke using results from the physical / exercise assessments, medical information, national guidelines, consultation and patient/client aims and information from the relevant carer with agreement and where appropriate.
- K34 The motivational processes, models and techniques involved in behavioural change for the referred patient/client to encourage long term beneficial lifestyle changes.
- K35 Mental health and mental health promotion in patients/clients after stroke.
- K36 How to communicate and consult effectively with the referred patient/client about their programme and progress, including relevant carer with agreement where appropriate.
- K37 How to manage medical complications until appropriate medical help is available, e.g. postural hypotension, adverse change in muscular tone, balance etc.
- K38 How to manage emergencies until appropriate medical help is available e.g. a Transient Ischemic Attack (TIA), fall etc.
- K39 The management, evaluation and reporting of information, in verbal and written formats.
- K40 How to use and adapt a system for monitoring and recording the patient/clients progress and updating their physical activity programme.
- K41 How to evaluate the effectiveness of a stroke exercise service (Phase IV).