

# STROKE

A STRATEGY FOR SCOTLAND

## WHAT IS A STROKE?

A stroke happens when the blood supply to the brain is disrupted in some way. This deprives brain cells of the oxygen and other nutrients they need; some brain cells are damaged and others die.

This can happen in one of two ways. Most strokes occur when a blood clot blocks one of the arteries that carry blood to the brain, or one of the smaller blood vessels within the brain itself. This is known as an ischaemic stroke.

However, some strokes are caused by bleeding in or around the brain from a burst blood vessel. These are known as haemorrhagic strokes.

A "transient ischaemic attack" (TIA) - sometimes called a mini-stroke - occurs when the blood supply to the brain has been cut off temporarily by a narrowing or blockage of a blood vessel. This produces similar symptoms to a stroke, but they disappear within 24 hours.

Every stroke is different. The precise effects depend on a combination of factors, which include:

- where in the brain the stroke occurred - different parts of the brain control movement, balance, the senses, language, emotion, etc.
- the severity of the stroke - how wide an area was damaged, permanently or temporarily
- the patient's age and general health

The most common symptoms of a stroke are numbness, weakness or paralysis down one side (which may affect an arm or leg, one side of the face, or all of one side of the body); problems in communicating; and swallowing difficulties. Other problems include disturbed vision, tiredness and difficulty in concentrating, incontinence and loss of awareness of the affected limbs.

Many people recover fully, and for most others the symptoms reduce in severity over time. Most recovery occurs within the first year to 18 months following the stroke.

## GLOSSARY OF TERMS

**Atrial fibrillation:** an irregular heart rhythm - a risk factor for stroke.

**Carotid doppler ultrasound:** the carotid arteries in the neck supply blood to the brain, and if these are narrowed they are more likely to be blocked by a blood clot, causing a stroke. A doppler (or duplex) scan is an ultrasound scan which uses reflected sound waves to build up an image of these arteries.

**CT (Computed Tomography) scan:** a non-invasive X-ray scan which enables doctors to examine cross-sections of the brain, identify the type of stroke (ischaemic or haemorrhagic), and assess the damage it has caused.

**Dysphasia (or aphasia):** a condition where the stroke has affected the ability to use or understand speech, and impaired reading and writing skills.

**Echocardiography:** the use of an ultrasound scan using reflected sound waves to build up an image of the heart, identifying clots or abnormalities of the heart valves.

**Hypertension:** high blood pressure - a risk factor for stroke.

**TIA (Transient Ischaemic Attack):** a brief episode (sometimes called a mini-stroke) when the blood supply to the brain is temporarily cut off. It produces similar symptoms to stroke, but they disappear within 24 hours. A TIA is a warning sign of stroke.



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# STROKE

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### INTRODUCTION

#### HOW BIG IS THE PROBLEM?

Stroke is a major cause of ill-health in Scotland; we have one of the highest rates of stroke in the world. Each year, more than 15,000 Scots suffer a first stroke. More than half of these are women, and 75% are aged 65 or over. An estimated 72,000 Scots living in the community have been affected.

Stroke is the main cause of serious disability in the community. It is also our third major cause of death - killing three times as many women, for example, as breast cancer.

#### HOW GOOD ARE STROKE SERVICES?

Well-organized stroke services, particularly specialist stroke units, have been shown to save lives and reduce disability. Detailed national guidelines have been developed, based on the most reliable evidence available. However, the actual pattern of stroke services varies widely across Scotland.

We have centres of excellence that are amongst the best in Europe. However, a recent national audit of all stroke services in Scotland revealed "significant exceptions and gaps in provision" in even the largest hospital trusts. Overall, Scots are not only more likely to suffer a stroke than other Europeans, but also more likely to die as a result.



## WHAT PATIENTS SHOULD EXPECT: A STRATEGY FOR STROKE SERVICES

*Based on the best available evidence of what is effective, people affected by a stroke should be entitled to expect the following:*

### 1. DIAGNOSIS AND ASSESSMENT - IDENTIFYING THE PROBLEMS AND ASSESSING WHAT THE PATIENT NEEDS

- Everyone should be made aware of the symptoms of a stroke; particularly those in high-risk groups - for example, with a family history of stroke, coronary heart disease or high blood pressure.
- Those with minor symptoms, which resolve quickly, should be seen in a fast-track assessment clinic within no more than two weeks. They should receive a full medical assessment and investigations, including a CT scan and (if appropriate) carotid doppler ultrasound and echocardiography.
- Ideally, this should be a "one-stop" service. Patients should be given a full explanation of the purpose and results of all investigations, and of action to reduce the risk of future strokes. Appropriate dietary and therapy advice should also be provided.
- **Patients with severe or persisting symptoms should be admitted as an emergency to hospital.** They should receive immediate medical assessment, with all relevant investigations, including CT scan, carried out within 48 hours.
- Patients should be assessed for their nursing and other care needs, and have an immediate swallowing assessment. Patients and their carers need to be fully informed of the purpose and results of all investigations, and as far as possible of the likely outcomes.

### 2. ACUTE CARE AND REHABILITATION - HOSPITAL-BASED SERVICES

- **Patients should expect to be cared for in a dedicated stroke unit.** This should be staffed by medical, nursing and therapy staff with a specialist interest and expertise in stroke care, operating as a multi-disciplinary team. The stroke service should provide both acute care and specialist stroke rehabilitation.
- In rural areas with small hospitals and dispersed populations, this may not be possible. In these circumstances, patients should still be treated using agreed protocols for stroke care, and rehabilitation should make use of generic rehabilitation facilities.
- Nursing care should be provided by staff with specialist knowledge and skills in stroke. There should be particular attention to potential problems such as swallowing and eating, fluid balance and hydration, nutrition, mobility, continence, associated cardiovascular problems, infections, prevention of pressure sores and skin care problems. Patients may also have vision or cognitive problems; nursing staff should be aware of this and ensure that patients' dignity is respected at all times.
- Patients are likely to be affected by anxiety and emotional problems, and are at significant risk of depression; this needs to be monitored, and appropriate action taken to support patients and carers.
- There needs to be early assessment for physiotherapy, occupational therapy, and speech and language therapy, by staff specialising in stroke. Patients who can regain mobility should be encouraged to do so as soon as possible.
- Patients and their carers need to be kept fully informed of the aim of rehabilitation and the probable course of recovery, and of action taken to reduce the risk of future strokes. Appropriate secondary prevention measures should be initiated as soon as possible.
- Information provided in booklet, video and audio tape form is particularly useful for both patients and carers. Publications such as those provided by CHSS should be made available, together with information on the CHSS Advice Line. The Charity can also organize visits by trained volunteers to hospital stroke patients, which can be particularly helpful for those with limited family support.



### 3. DISCHARGE PLANNING - RETURNING HOME FROM HOSPITAL

- Discharge planning should begin well in advance, and be based on the individual needs and circumstances of the patient. Patients and carers need to be kept fully informed, and consulted at each stage in the process.
- **There needs to be full consultation and joint working with local authority and primary care services to ensure that the full community care package is available to patients and carers immediately on discharge.** This includes all necessary assessments for OT aids, adaptations and equipment.
- Initial appointments, for example with therapists, should be arranged before discharge. There must also be close co-ordination with the patient's General Practitioner.
- Patients and carers who could potentially benefit should be made fully aware of the services provided by voluntary agencies such as CHSS, and appropriate referral procedures put in place.
- Follow-up after hospital discharge is vital for both patients and carers. There should be a named telephone contact to deal with any immediate problems following discharge, a post-discharge visit within 2-3 weeks, and a follow-up after 2-3 months.
- Ideally, a stroke liaison nurse or CHSS stroke nurse should make contact with the patient and carer prior to discharge and follow up regularly over the following 6-12 months, through home visits and telephone contact.
- General Practitioners need to be kept fully informed and undertake responsibility for monitoring patients' progress at home. In particular, GPs should ensure suitable secondary prevention measures are taken, including smoking cessation, and management of risk factors such as hypertension, diabetes and atrial fibrillation. Problems associated with stroke, such as cognitive and behavioural problems, and depression, should also be monitored.

### 4. COMMUNITY SUPPORT - LONG-TERM CARE AND SUPPORT AT HOME

- The Primary Care team should ensure that patients and carers are given information on statutory benefits such as Disability Living Allowance and Attendance Allowance, for which they may qualify. They should be referred to the National Benefits Agency Enquiry Line, local Benefits Agency, Citizens' Advice Bureau, Welfare Rights Office, or any other agency that might be able to help.
- Patients under retirement age should be given advice on agencies which can assist in helping them get back to work, if this is feasible. Patients who drive should be advised on returning to driving, if appropriate.
- Speech and Language Therapists and General Practitioners should make patients with communication problems aware of the CHSS Volunteer Stroke Service, and where appropriate, initiate referral procedures.
- For other patients, CHSS also provides a network of local stroke clubs, run on a voluntary basis and offering social support, activities and companionship. Patients and families should be made aware of these clubs and the means of accessing the services they offer.
- In some parts of the country, there are also separate groups for younger stroke patients operated by both CHSS and Different Strokes. Patients under 65 should be given information on these groups if their services are available locally.
- **At every stage in the process, from admission to long-term support in the community, patients and carers need to be provided with the fullest possible information, and encouraged to take the maximum responsibility for their own recovery.**