Good rehabilitation after stroke can help prevent further strokes from occurring, help patients to return to work and alleviate psychological problems.

Promoting rehabilitation for stroke survivors

In this article...

- Three key aspects of nurses’ role in stroke rehabilitation
- Why addressing psychological factors saves lives
- How nurses can help patients back to work

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Stroke does not only affect physical health; it also has an impact on psychological health and many other aspects of survivors’ lives.

Nurses have a central role in stroke rehabilitation. This article discusses rehabilitation, the role of the nurse, psychological care, secondary prevention and life after stroke. It focuses on resuming driving and returning to work as these are particularly important for the one-quarter of stroke patients who are aged under 65.

Around half of stroke survivors are left dependent on others for everyday activities, and it is estimated that the direct care cost of stroke is at least £3bn annually (NAO, 2010).

While significant advances in stroke treatment and care have led to a reduction in mortality rates, stroke survivors require skilled nursing intervention in the rehabilitation phase of recovery (Miller et al, 2010). A “rule of thirds” applies, with about one-third of survivors making a full recovery and another third dying in the hours, days and weeks immediately following the stroke. The remaining third, sometimes referred to as the middle third, can make gains in independence through rehabilitation programmes.

The multidisciplinary team

Well-staffed and organised stroke units have been shown to reduce death, dependency and length of inpatient stay after stroke (Nelson et al, 2007).

All healthcare workers in the multidisciplinary team have a contribution to make to ensure the team works towards agreed goals in a consistent and supportive manner. The physiotherapist is primarily responsible for devising the plan of physical interventions to prevent complications such as contractures, and to teach patients to regain balance and the use of affected limbs. The occupational therapist works towards promoting independence in activities of daily living, including personal care activities such as washing and dressing, and promoting participation in society through work or driving. Where necessary, speech and language therapists assist in issues such as swallowing and communication, while medical staff take

Therapy to help with coordination

5 key points

1. A quarter of strokes occur in people aged under 65
2. One-third of stroke survivors experience depression
3. Recurrence of stroke could be reduced by 80% with optimum therapy
4. Vocational rehabilitation helps to match survivors’ skills with jobs
5. The Stroke Drivers’ Screening Assessment helps determine safety to drive
Psychological problems interfere with recovery, with depressed stroke survivors lacking the motivation to participate in rehabilitation. In the longer term, those who are depressed fail to engage in leisure and social activities, have increased healthcare use and are more likely to die early (Williams et al, 2004).

All members of the multidisciplinary team need to be able to recognize psychological problems following a stroke and understand their role in managing these problems. In terms of assessment, the single question: “Do you often feel sad or depressed?” is accurate in identifying possible depression following a stroke (Watkins et al, 2007), while the Signs of Depression Scale (Lightbody et al, 2007) may be useful in those with cognitive and communication problems. NHS Improvement advocates a stepped care model, in which nurses have an important role involving assessment, watchful waiting, support, psycho-education, active monitoring and referral (NHS Improvement, 2011) (Fig 1).

Nurses can provide generic support through active listening, education and signposting to potential support services.

FIG 1. STEPPED CARE MODEL FOR PSYCHOLOGICAL INTERVENTIONS AFTER STROKE
Adapted from IAPT model with input from Professor Allan House and Dr Posy Knights

Source: NHS Improvement (2011)

BOX 1. NURSE ROLE IN STROKE REHABILITATION

- Provider of care – aiding with nutrition, hydration, elimination and hygiene
- Facilitator of personal recovery – maintaining and promoting the emotional and social aspects of recovery and the development of coping strategies, and encouraging the patient in activities of daily living
- Manager of multidisciplinary provision – liaising, organising and mediating between the patient and carers (personal and professional)

Source: Burton (2000)
Listening to patients’ accounts of their journeys acknowledges them as individuals and can give an appreciation of the challenges they face. Emotional challenges of stroke may include fear, anxiety, frustration, loss of confidence, a sense of loss, and uncertainty and disappointment around recovery. Stroke survivors have reported information, problem-solving strategies and engagement in activities as extremely helpful in their recovery and assisting with acceptance (Ch’Ng et al, 2008).

There are some simple strategies that nurses can use to identify difficulties and provide support. Asking open-ended questions facilitates dialogue and enables patients to talk more freely about their worries and concerns, while providing clear explanations and reassurance may help manage confusion and uncertainty. Supporting patients to think about their own solutions to identified problems, and highlighting strengths and success may help promote more positive mood states after stroke.

Rehabilitation should incorporate support for adaptation and readjustment, so that patients can move towards meaningful, realistic individual goals for recovery as they come to terms with the complexities and uncertainties of life after stroke.

Secondary prevention
Stroke survivors are at high risk for immediate or long-term recurrence. The risk of a second event is around 10% at seven days and 20% at three months; by five years it is estimated that 30-43% will have had a further stroke (Intercollegiate Stroke Working Party, 2012). There is also a high risk of further cardiovascular events.

Risk factor modification is therefore essential after stroke or transient ischaemic attack to reduce mortality and morbidity from stroke recurrence. However, fewer than 50% of stroke survivors in the UK feel they have been informed effectively about preventing recurrences (NAO, 2010).

Before risk factor modification can be planned, it is essential to establish the aetiology of the stroke. The national clinical guideline for stroke outlines the assessments and interventions that may be needed (Box 2) (ISWP, 2012). Some of these apply to all stroke survivors, but it is important to conduct an individual assessment and to devise an appropriate plan of intervention. It has been estimated that optimum secondary prevention (including dietary modification, exercise and anti-thrombotic, anti-hypertensive and statin therapy) could reduce the incidence of recurrent vascular events by 80% (Hackam and Spence, 2007). However, uptake and adherence to secondary prevention is often poor (Lummis et al, 2008).

Medication regimens after an ischaemic stroke will normally include antihypertensives, antithrombotic agents (unless the person is prescribed oral anticoagulants), and lipid-lowering therapy (ISWP, 2012). Antihypertensives and statins are effective in reducing stroke risk, even in people who do not have an elevated blood pressure or an abnormal lipid profile. The recommended frontline antithrombotic therapy is clopidogrel (75mg daily). Aspirin and dipyridamole in combination is only recommended if clopidogrel is contraindicated or not tolerated (ISWP, 2012).

Secondary prevention measures are usually started while patients are in hospital, and are continued in outpatient and primary care settings. Nurses working in any of these settings can contribute to uptake and adherence. In the inpatient setting, routine medication rounds can be used as an opportunity to discuss medication regimens.

Some potential difficulties with regimens can also be identified at this time, such as dysphagia, cognitive impairment, visual problems and fine motor co-ordination. However, other difficulties may not become apparent until after discharge. It is important to ask survivors (and families, where appropriate), about any problems they are experiencing with their medication.

Medication adherence is known to be poor after stroke, partly because of myriad physical and cognitive problems, but also because of the long-term nature of treatment, the lack of immediate obvious benefit from medication such as statins and anti-hypertensives, and the complexity of post-stroke medication regimens (Lummis et al, 2008). Survivors may be reluctant to admit that they are not taking medications as prescribed, so it is important to ask directly and to “give permission” for them to acknowledge problems, by using a non-judgemental approach.

Nurses also have an important role in assessing other risk factors for recurrent stroke, such as smoking, inactivity, dietary factors, obesity and excess alcohol intake. Intervention plans may be initiated in the inpatient setting and continued in outpatient or primary care. Scheduled post-stroke reviews at six weeks and six months provide an ideal opportunity to do this, and may be supplemented by opportunistic advice (such as when attending for a flu vaccination).

Life after stroke
Stroke has an impact on physical and emotional health, on survivors’ relationships with people close to them, and on their ability to live their lives as they did before their stroke.

For many, returning to work and resuming driving are key goals of recovery and primary rehabilitation, particularly in the light of the increase in retirement age, and the fact that a quarter of strokes occur in people aged under 65, many of whom have dependants (Daniel et al, 2009).

Returning to work
The National Stroke Strategy (DH, 2007) and the national clinical guideline for stroke (ICSWP, 2008) state that stroke survivors should have access to vocational rehabilitation services, enabling them to participate in paid, supported or voluntary employment. However, not everybody can access this type of service. Where it is provided, it is rarely organised in a way that maximises survivors’ opportunities to work with their existing employers (Playford et al, 2011).

Survivors are often discharged from hospital without advice about work, and those with severe disability may be prematurely written off by health professionals who assume returning to work means returning to the same job with the same responsibilities (Barker, 2006). A different role with different responsibilities can be negotiated with an existing employer, provided that the employer’s door is kept open so that all options can be explored.

Nurses have an important role to play...
Driving after stroke

Most people who were driving before their stroke want to resume. Driving increases independence and opportunities to participate in work and leisure activities, and losing this ability results in a poorer quality of life. Driving also provides a solution to mobility problems, which make using other forms of transport difficult.

At some point during the stroke survivors' recovery, the question will arise as to whether they are fit to resume driving. In the UK, licence holders have to notify the Driver Vehicle and Licensing Authority (DVLA) if they have a disability that affects or may in future affect their safety as a driver. They are not allowed to drive for one month after stroke but may resume once their clinical recovery is satisfactory.

Residual motor function deficits, cognitive impairment and visual field loss all affect fitness to drive. While clear DVLA rules govern vision, and physical disabilities can often be compensated for by vehicle adaptations, cognitive impairments (frequently overlooked in routine clinical practice) present a problem. As with work, these hidden disabilities mean stroke survivors may resume driving without advice or assessment.

The Stroke Drivers' Screening Assessment (SDSA) is a cognitive screening test for drivers who have had a stroke (Lincoln et al., 2010). The test, which predominately measures executive abilities, takes less than 25 minutes to complete and can be administered in clinics or people's homes without any additional training. It can help to identify which survivors require further assessment at a specialist driving assessment centre, and introduces standardised cognitive assessment to existing procedures.

Conclusion

Many stroke survivors can make significant gains following stroke with a planned rehabilitation programme delivered by a multiprofessional team in conjunction with the individual and their carers. The nurse plays a key role in the team as a provider of care, a facilitator of personal recovery and of multidisciplinary care, and can therefore promote survivors' return towards independent living.

Where psychological care is concerned, nurses have an important role that involves assessment, reassessment, support, psycho-education, active monitoring and referral. They also play an important part in helping to prevent stroke recurrence, particularly in assessing and advising on risk factors, and ensuring adherence to medication regimens.

Nurses can play a part right from the outset in taking a positive attitude to the future, considering what would facilitate stroke survivors' return to work and whether cognitive abilities preclude them from driving.

References

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