The second article in our focus on stroke is a review of the role of nursing in rehabilitation. The time is right, the author argues, for nurses to demonstrate that they are not just 'directed doers' in stroke rehabilitation, but 'innovative practitioners'.

The cost of strokes to the average health district in England and Wales is about £3 million per year, with around 1,500 people affected at any one time and about 500 new cases per year (1).

Stroke is a major cause of death and long-term disability in Western countries, and for first stroke incidence, there is an increase with age, peaking in the over-75 age group (2). Harris estimated that stroke was the cause of 24 per cent of severe disablement in the community (3).

The literature related to stroke is extensive and tends to be dominated by medical authorship, yet the care of such patients in hospital and the community is an everyday responsibility for nurses on general and elderly care wards and for those working in the community. But beyond the facilitation of diagnostics, prescription, medical interventions and fundamental nursing care, what is the nurse's rehabilitative role for stroke patients? Is it sufficiently dynamic in its contribution to effect changes in patient outcome, for example, shortening the hospital stay, or improving functional performance in a shorter time than that currently attained?

One difficulty in seeking answers to these questions is the paucity of scientific research into the effects of traditional therapeutic interventions, such as physiotherapy and occupational therapy, upon stroke patient outcomes, and the observation that much of the research that exists is often inconclusive (4), perhaps because of methodological problems (5). Intensive therapy has been estimated to take up only 3.4 per cent of a patient's waking day (6), even though some studies suggest that early and intensive therapy has a beneficial effect on speed of recovery, if not long-term status (7, 8).

From these findings, it seems reasonable to hypothesise that an increase in rehabilitation knowledge and practice application by all professional groups in contact with stroke patients could increase the amount of therapy time patients receive and the potential for functional improvement. This would require a resolution of professional rivalry, which has been identified as a problem in furthering shared multidisciplinary approaches to rehabilitation (1).

**Nursing role** Nurses currently receive no formal training in rehabilitation techniques, in spite of the long hours spent with patients. It seems that the negative findings of earlier studies of hospitalised elderly disabled patients and those suffering from stroke have made little impact upon nurse education in encouraging the promotion of discrete rehabilitation training. These include:

- Nurse-induced dependency (9, 10)
- Long periods of patient inactivity (1, 10, 11)
- The most immobile patients receiving the least amount of time with trained nurses (12)
- Negative stereotyping of stroke patients (13).

Despite such findings, the potential for a more dynamic nursing practice role in rehabilitation is recognised by several authors in the UK (4, 14-16), although how this is to be achieved remains less clear. There is little research related to what the nature of nursing rehabilitative intervention is, let alone its effectiveness.

**Special nurse training**

Some direction can be identified from the results of two Swedish hospital-based comparative studies. In the first (8), findings indicated that the provision of an activation programme combined with special nurse training, in addition to traditional therapies, improved functional performance of stroke patients in the first month.

The second study (17) focused upon the provision of education to nurses in designated experimental wards on systematic nursing care documentation for hospitalised stroke patients. This demonstrated a significant decrease in length of stay for experimental stroke patients when compared with those in conventional control wards.

This positive finding was attributed to the increased staff awareness and knowledge of stroke, and higher levels of interdisciplinary cooperation by nursing staff on experimental wards. No difference was seen, however, between
Stroke patients require intensive rehabilitation. But are nurses innovative rehabilitation practitioners, or just passive bystanders?

**References**

The experimental ward’s stroke patients and the controls in conventional wards in terms of functional performance at discharge.

Such studies would seem to indicate that there is a need to develop a core of practice rehabilitation skills in nursing in addition to those which are predominantly organisational. These core practice rehabilitation skills, which can be identified as physiotherapy, speech therapy and occupational therapy, should be viewed not so much as the addition of new skills, but the enhancement of those which already exist, and which are in operation throughout the stroke patient’s day.

The aims for nurses should be not only to help the stroke patient use the unaffected parts of the body to cope with the new situation but, of equal importance, to concentrate on the restoration of lost function through retraining techniques (18).

The need for a strong rehabilitation role is of equal importance to community nurses, as between 30-50 per cent of stroke patients (geographical variability) are cared for from the outset in their own homes (19, 20). Nurses in private nursing and residential homes, where stroke is estimated to be the second most common cause of disability (21), have particular needs for specific guidelines and training in the care of stroke patients (22).

**Assessment** Wherever nursing care takes place, its quality stems from appropriate and objective assessment of the stroke patient’s ability and disability. It is the bedrock from which care objectives are formulated and agreed by nurse, patient and relative. The range of severity of disability following stroke varies from spontaneous recovery with minimal disability, to that of severe hemiparesis with apraxia or dyspraxia, hemianaesthesia with agnosia, and hemianopia with visual agnosia.

**Psychological difficulties**
Post-stroke depression is a commonly reported symptom and may be severe and longstanding (23). Some studies indicate that it may have psychological and physiological causes (24) and that diagnosis may be masked by other communication disabilities (25). Poor motivation and mood at an early stage post-stroke have been found to correlate highly with failure to benefit from rehabilitation, and with poor outcome a year later (26). Such research indicates the clear need for the content of rehabilitation training to combine physical considerations with psychological ones.

Irrespective of the perceived severity of the stroke, a thorough assessment is a requisite for
all patients. This provides the basis for health education for the prevention of a further episode and immediate intervention.

For the majority of hospital and community stroke admissions, an initial period of bed rest may occur, depending on the severity of the stroke. In such circumstances, a full assessment of functional performance may not be possible, but history-taking and some important initial observations of function can be made using simple tests. These are described by Isaacs (27), and can be summarised in his aphorism, ‘an apple, an orange, a newspaper, a pencil and paper, and a cardigan, tell more about the function of the nervous system than a CT scan and an EEG’. Asking a patient to use these easily available items will demonstrate his or her visual ability, perceptual and physical co-ordination of movement, the acknowledgement and recognition of the affected side, and level of comprehension and response to requests.

The main functional observations are made with the patient out of bed, to see what the patient can actually do, not what it is thought he or she could do.

The fundamental objective of assessment for many stroke patients is the need to retain safe access to ‘life space’ (27). Life space is that in which the activities of daily living take place, and its extent and limitation is dependent upon the patient’s independent initiation of a series of co-ordinated physical activities.

Early assessment of a range of human functions to access and perform in life space is conducted by the professions involved in the multidisciplinary team. These assessments give a picture of the individual from which to plan rehabilitation to improve outcome.

Joint assessment documentation, to which all members of the multidisciplinary team contribute, greatly aids a sense of shared focus and responsibility. For although nurses may not be responsible for conducting the wide range of assessments required, as the professionals with the most contact with patients, they need to be fully aware of the aims and outcomes in order to contribute to therapy.

**Consistent approach**

An assessment of mobility is largely the remit of physiotherapists and will include observation of the patient’s ability to roll onto his or her side in bed, sitting balance on the side of the bed, sitting to standing balance, rising and sitting down on a chair, walking balance (with or without non-human aid), pace length, pattern and consistency of gait, and walking speed over distance.

Similarly, doctors and speech therapists will make assessments of perceptual and speech and language abilities. But in maximising these functions outside of the dedicated therapist’s time, it is nurses who will act as the patient’s main support, adviser and therapist, and it is important that this role facilitates the continuity and consistency of rehabilitative planned activity.

Increasingly, nurses within the ‘team’ are making use of the Barthel ADL Index Scale (28) and an appropriate depression rating scale (29, 30), which are comprehensive, well-validated and highly recommended (31). These aid a broader assessment of functional state and can be used as an objective repeat measure of progress to motivate the nurse and patient.

If we follow through with the concept of the states of co-ordinated movement as given above, the achievement of each stage can only be determined by re-assessment. It is the skill and knowledge of the nurse which contribute to the retraining and enhancement of the existing ability of the patient, including the motivation of the patient to succeed, and which are the catalysts in the achievement of a maximum functional outcome.

**Debate**

If the concept of a rehabilitation role in nursing is to come to fruition, some questioning of its viability should be made:

- Is rehabilitation an appropriate use of nursing time?
Re-learning communication skills is essential for stroke patients ... and it need not all be hard work.


- Isn't rehabilitation the sole responsibility of the physiotherapist and other therapists?
- Are nurses sufficiently prepared in theory and practice to undertake rehabilitation?

The answers to the first two questions will depend upon the philosophy of care held by the nurse, the nurse manager and that of other professionals in the team. If all these individuals aspire to true multidisciplinary care for stroke patients, the answer will be a resounding 'yes' to the first question, and 'no' to the second.

If the team philosophy is fragmented, however, converse responses will be given to each, which could indicate a reluctance to acknowledge that meeting patients' needs is more important than maintaining professional parameters.

The answer to the third question is more difficult to determine, for nursing knowledge which addresses the theoretical principles of rehabilitation (but not its practical substance) may not be enough to make nurses effective as rehabilitators. Neither is it wholly acceptable nor advisable that nurses who extend their knowledge and skills must currently do so in an ad hoc way, primed by individual interest rather than professional recognition of the necessity for a discrete rehabilitation training (that is, by formal study to certificate or diploma-level).

Nurses do make a positive contribution to 'caring for' stroke patients in illness, but a balance between the hands-on care for a patient must be struck with that of a 'hands-off caring about a patient' (32), or prolonged dependency may result.

Symptomatic of a lack of rehabilitative purpose would be statements in care plans which direct the nurse to 'sit patient out of bed in chair', or 'encourage to use commode', or 'walk to dayroom', without stating the real objectives of actions or how they are to be carried out.

**Conclusion** On a national level, the time when health care performance of different professions could individually and corporately rest in peace is over. The new policy shows a commitment to improving patient care and its outcomes.

**Grasp the nettle**

The Health of the Nation (33) has identified stroke and heart disease as a key area for the strategic reduction of mortality and morbidity (34). With the increased pressure for speedy turnover of hospital patients and an increasing number of disabled people in the community, the time is right for all members of the multidisciplinary team in both hospital and the community to grasp the nettle and examine individual and team approaches to practice for stroke patients.

This should take account of research findings in identifying policy to meet corporate strategic goals, determining multidisciplinary research issues and methods of evaluating outcomes and, most importantly, putting words into practice. It is crucial that nurses become a major part of this process as practitioners, managers and policy-makers, or their roles will be justly subordinated to those of 'directed doers' rather than the 'innovative practitioners' who will be at the forefront of care for future stroke patients.