Stroke outcomes are improving with the development of co-ordinated care, writes Imelda Noone

In recent years, the benefits of organised clinical services for stroke care have been clearly established. Hospital-based stroke units for acute and initial rehabilitation of patients with stroke and TIA are associated with a reduction in mortality and institutional care of around 20%, with one additional patient returned to community living for every 20 patients treated.

Recently, we have seen the development of new techniques and strategies for improving the care of people with stroke. For example, following emergency admission to hospital with stroke, administration of thrombolysis therapy can reverse or substantially reduce disability in one-third of patients treated within 90 minutes of stroke onset. However, strict administration guidelines mean that only 8-15% of confirmed ischaemic stroke patients are eligible for such treatment.

St Vincent’s University Hospital in Dublin admits 250-300 stroke patients per year, of which 90% are over the age of 65 years (46% are over the age of 80 years). The burden of stroke is predicted to increase in the years ahead because of the rapid rise in the elderly population. The development of the advanced nurse practitioner (ANP) post occurred within the context of a changing health service, and more specifically in response to the demographic changes of the healthcare population in which we serve.

Advanced nursing practice is carried out by autonomous, experienced practitioners who are competent, accountable and responsible for their own practice. They are highly experienced in clinical practice and are educated to Master degree level (or higher). The postgraduate programme must be in nursing or an area that is highly relevant to the specialist field of practice.

St Vincent’s University Hospital in Dublin admits 250-300 stroke patients per year, of which 90% are over the age of 65 years (46% are over the age of 80 years). The burden of stroke is predicted to increase in the years ahead because of the rapid rise in the elderly population. The development of the advanced nurse practitioner (ANP) post occurred within the context of a changing health service, and more specifically in response to the demographic changes of the healthcare population in which we serve.

Advanced nursing practice is carried out by autonomous, experienced practitioners who are competent, accountable and responsible for their own practice. They are highly experienced in clinical practice and are educated to Master degree level (or higher). The postgraduate programme must be in nursing or an area that is highly relevant to the specialist field of practice.
ANP roles are developed in response to patient need and healthcare service requirements at local, national and international levels. ANPs must have a vision of areas of nursing/midwifery practice that can be developed beyond the current scope of nursing practice and a commitment to the development of these areas.

The four concepts of the ANP role include:

**Autonomy in clinical practice**

As an autonomous ANP, I am accountable and responsible for advanced levels of decision-making that occur through management of specific patient caseloads. This includes conducting comprehensive health assessment and demonstrating expert skills in clinical diagnosis and treatment of stroke from within a collaboratively agreed practice framework alongside other healthcare professionals. Nursing knowledge and experience informs my decision-making, even though some parts of the role may overlap with medical or other healthcare professional roles.

**Expert practice**

As an expert practitioner I need to demonstrate practical and theoretical knowledge and critical thinking skills and the ability to articulate and rationalise the concept of advanced practice.

**Professional and clinical leadership**

ANPs are pioneers and clinical leaders in that they may initiate and implement changes in healthcare service in response to patient need and service demand.

As an ANP I participate in educating nursing staff and other healthcare professionals through role-modelling, mentoring, sharing and facilitating the exchange of knowledge both in the classroom, the clinical area and the wider community.

More recently, through the National Clinical Programme for Stroke, we have developed a foundation education programme suitable for all staff who care for patients affected by stroke. The foundation programme has two main components:

- An online learning programme that addresses the core competencies for caring for the patient affected by stroke – [www.stroketraining.org](http://www.stroketraining.org)
- A two-day taught programme that consolidates the online learning and allows for additional education, group discussions and practical demonstrations.

We are currently developing teaching packs to facilitate this training at local level.

**Research**

ANPs are required to initiate and co-ordinate nursing audit and research. They identify and integrate nursing research in areas of the healthcare environment that can incorporate best evidence-based practice to meet patient and service need.

ANPs are required to carry out nursing research that contributes to quality patient care and which advances nursing and health policy development, implementation and evaluation. The application of evidence-based practice, audit and research will inform and evaluate practice and thus contribute to the professional body of nursing knowledge, both nationally and internationally.

**My working day**

My role as an ANP in stroke care includes holistic assessment and management of the patient with stroke under agreed protocols, communicating with patients and their families as early as possible in order to enhance both their understanding of the disease process and the process of their care, and to provide patient education on stroke, ensuring secondary prevention measures are implemented. I work as part of a multidisciplinary team and liaise closely with all members of that team.

My working day starts at 07.30am by visiting the ED with the consultant physician and the medical team. In the ED we assess all patients over the age of 65 years admitted with a diagnosis of stroke in the previous 24 hours. This early involvement ensures a comprehensive assessment of the patient and direct liaison with their families enabling accurate patient history and any other relevant information, particularly related to their previous mental and physical status.
As stroke can be such a disabling disease, I try to meet patients and their relatives as early and as often as possible to answer any questions they may have about the nature of stroke, the prognosis and potential complications that may occur.

The majority of stroke patients are discharged home, and where possible, are followed up by myself and the consultant physician in the outpatients department to ensure appropriate secondary prevention and to monitor progress using simple measures such as weight and Barthel index and to arrange any further rehabilitation on a day hospital or community basis.

The hospital provides a 24/7 thrombolysis service which I co-ordinate on a daily basis during the week.

We have also set up a ‘stroke prevention clinic’ which is run once weekly by both myself and the clinical nurse specialist. In this clinic we monitor secondary prevention measures including blood pressure control, compliance with medication, driving advice, weight management, diet, information regarding smoking cessation, etc.

In the more complex patients, we monitor pressure area care, manage continence and look at the overall function of the patient using the Barthel index, pre-morbid function using the Modified Rankin, and screen for cognitive impairment using the Mini Mental State Exam or the Addenbrookes. Depression can also be common and the Hospital and Anxiety Depression Scale (HADS) can be a useful tool for screening.

As a nurse prescriber, I also provide continuity in medication management of stroke or TIA patients including the prescribing of antiplatelet, anticoagulants, antihypertensives, antidepressants and statins.

My role also involves the co-ordination of the TIA (transient ischaemic attack) clinic, which is a once-weekly outpatient’s clinic for TIA patients seen in the ED that do not require immediate admission.

As part of the National Clinical Programme for Stroke, we have set up a local stroke team to improve communication with GPs and all disciplines working within the hospital and community settings, and to promote training and education of healthcare professionals delivering stroke care.

The limitations to my role and indeed to our service is an inadequate number of dedicated beds to provide both acute care and rehabilitation for all stroke patients in the hospital, but we are currently fundraising for a dedicated stroke unit.

Furthermore, we have limited capacity to follow up stroke patients discharged to extended care who are often very disabled but at risk of preventable complications such as infection, contractures and falls.

Stroke is often disabling, but outcomes in recent years have improved with the development of co-ordinated care and more recently, thrombolysis. It is a privilege to be able to participate in this challenging but rapidly changing area.

Imelda Noone is the first advanced nurse practitioner (ANP) in stroke care in Ireland and is based at St Vincent’s University Hospital, Dublin. She is also lead nurse on the National Clinical Programme for Stroke

References
1. An Bord Altranais (2000a) Requirements and Standards for Nurse Registration Education Programmes. ABA, Dublin
2. An Bord Altranais (2000b) Scope of Nursing and Midwifery Practice Framework. ABA, Dublin