Advanced nurse practitioner-led referral for specialist care and rehabilitation

Wendy Mashlan and colleagues discuss changes made to a care of the elderly referral service, its evaluation and its outcomes

Abstract

In response to the need for appropriate and timely care of frail older patients admitted to hospital, a dedicated advanced nurse practitioner (ANP)-led referral service was developed. The service has continued to evolve over the 13 years since its implementation in accordance with changing service demands. This article describes the role of the ANP in care of the elderly/rehabilitation medicine and focuses on one area of clinical practice developed by the team: an ANP-led referral service. The aim of developing the service was to ensure that patients who required specialist care and rehabilitation could be identified and assessed as soon as possible after admission, with the premise that they could be transferred to a bed in care of the elderly medical wards. This was perceived by the ANPs to be advantageous for patients, who would receive care from a specialist team, and for care of the elderly staff who could use their knowledge and skills appropriately and safely.

Keywords
advanced nurse practitioner, older people, rehabilitation, secondary care, service improvement

SINCE THE care of the elderly (COTE) inpatient medical service at the Princess of Wales Hospital, Bridgend, was set up in 2002, it has undergone several changes. These have been influenced by the reduction in doctors' hours, difficulties in recruitment of medical staff, an ageing population requiring specialist input, decreased bed capacity, and health and social care policy, such as Designed for Life (Welsh Assembly Government (WAG) 2005), the National Service Framework for Older People in Wales (WAG 2006) and Together for Health (WAG 2011).

Introduction of the advanced nurse practitioner (ANP) role to ensure patients receive effective and timely care has been one of the main changes. There is limited evidence about the role of the ANP in COTE secondary care. However, where services have been acknowledged and reviewed, positive outcomes have been identified in relation to clinical care and service delivery (Lambing et al 2004, Skills for Health 2009, Barton and Mashlan 2011, Dean 2013).

The ANP role in the COTE service has continued to evolve and expand. The team consists of nine full-time practitioners at various levels, including one trainee band 6, six band 7 and two band 8a lead ANPs, who all work Monday to Friday, 9am-5pm. They work in a multidisciplinary team that includes junior doctors. However, due to six-monthly rotations and on-call commitments, junior doctors’ presence is limited and inconsistent. The clinical team is, therefore, recognised as comprising the medical consultant and ANP and overall line of responsibility is to the unit-based chief nurse.

Clinical management of day-to-day patient care is the ANPs’ main responsibility. Those employed in the team are expected to have, or be working towards, a master’s degree in advanced clinical practice, which should include an independent prescribing qualification. The ANPs are autonomous in relation to physical assessment, investigation, diagnosis and treatment, therapeutically and non-therapeutically, and take responsibility for discharge and admission of patients on their wards. Development of the ANP role has been
influenced by guidance from the Royal College of Nursing (2012), while the Framework for Advanced Nursing, Midwifery and Allied Health Professional Practice in Wales is the main guidance used for continued role development (National Leadership and Innovation Agency for Healthcare (NLIAH) 2011). The ANPs are required to provide ongoing evidence of their competence with a clinical portfolio in accordance with Welsh Government and health board governance on advanced practice (NLIAH 2012).

Each of the nine practitioners has a primary clinical base in a specific area on the main hospital site or community hospital. These areas include general COTE, shared medical and mental health, stroke, orthogeriatrics and community hospital ward/day hospital. The number of inpatient beds covered by the ANP team in the main hospital is 100, with an additional 20 beds based in the community hospital. As well as day-to-day ward-based work, the team also operates an ANP-led referral service across all areas of care in the main hospital.

Before development of the referral service, patients were either identified by the consultant geriatrician as needing referral to the COTE medical wards or transferred by the hospital bed manager to the COTE medical wards, regardless of whether the transfer was appropriate for patients to continue their care. This resulted in a number of patients being transferred inappropriately to COTE medical wards where their needs could not be met, or care was compromised in clinical areas not staffed for highly acute patients. It became apparent that a system was needed to identify patients appropriate for transfer to COTE medical wards.

**Service development**

The ANPs were tasked with developing criteria and a workable system to take forward the idea of an ANP-led referral service. The overall aim of developing the service was to ensure that patients who required specialist care and rehabilitation could be identified and assessed as soon as possible after admission, with the premise that they could be transferred to a bed in the COTE medical wards for ongoing care. This was perceived by the ANPs to be advantageous for patients, who would receive care from a specialist team, and for staff in the COTE setting who could use their knowledge and skills appropriately and safely.

The Plan, Do, Study, Act cycle (Langley *et al* 2009) was used to provide a logical approach to implementation, evaluating impact of the service and planning the next required cycle of change to ensure that the service was robust and achieving its aim (Figure 1). Team members were also keen to

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**Figure 1** The Plan, Do, Study, Act cycle

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**ACT**
- Plan the next cycle
- Decide whether the change can be implemented

**PLAN**
- Define the objective, questions and predictions.
- Plan to answer the questions (who? what? where? when?)
- Plan data collection to the answer the questions

**STUDY**
- Complete the analysis of the data
- Compare data to predictions
- Summarise what was learned

**DO**
- Carry out the plan
- Collect the data
- Begin analysis of the data

*(Langley *et al* 2009)*
use reflective practice to understand the process of change and to reduce bias that may arise during the process of evaluating their own service. The ‘What? So what? Now what?’ model of reflection was adopted at each point of change (Rolfe et al 2011). The model enabled the team not only to reflect on positive and negative elements of the change process, but also to be reflexive, which allowed more of an objective review to take place.

**Plan** A referral form was designed by the ANP team and put in place on all wards that managed adult patients. These included two general surgical wards, two specialist surgical wards, the intensive therapy unit and four general/specialist medical wards, with a total of 210 beds. Exclusion criteria were developed after a review of the literature and based on key indicators that would suggest when a patient would not benefit from COTE/rehabilitation. These included coma, unstable angina, forced expiratory volume in one second<1, advanced malignancy, stage 4 heart failure, advanced dementia, Mini Mental State Examination (MMSE)<15, no clear diagnosis, unable to weight bear and use of a hoist required pre-admission (Landi et al 2002, Sherrington et al 2003, Nusbaum 2004). Referral forms included the exclusion criteria to assist staff on different wards when considering a patient referral. Each ward was also allocated an ANP as a link practitioner.

**Do** In the initial stages of development only three ANPs were employed in the service, linked with a total of five different wards. As the team increased in size, wards were reallocated and evenly distributed among the nine ANPs. The responsibility of the link ANPs is to visit their allocated ward daily and pick up any referrals that may have been made by the ward team, including physiotherapist (PT), occupational therapist (OT), nursing and medical staff, and to carry out an assessment of the patient’s suitability for transfer to COTE/rehabilitation.

Assessment consists of a review of the patient’s notes, current and ongoing clinical problems, discussion with the OT and/or PT, discussion with ward staff about any nursing issues and goals, and a review of a patient’s current investigations. The Carestream radiology viewing system and Patient Information Management System (PIMS) provide supportive information in relation to patient diagnosis and medical stability along with a bedside physical review of the patient. Once patients are deemed suitable they are entered into an electronic share-point. This system was created by the ANPs and information technology (IT) department to enable sharing of up-to-date information with all involved in managing patient transfers between ward areas. A hyperlink was provided by the IT department so that all relevant staff could access an up-to-date list of patients identified for COTE wards. The ANPs also have responsibility for co-ordinating patient transfers as beds become available on COTE wards.

**Study** An evaluation was undertaken and comparisons made over a six-month period (January to June) before introduction of the referral service in 2002 and after implementation in 2006. A retrospective, cross-section case note analysis was also undertaken. The average age of patients was approximately the same pre- and post-referral service: women aged between 74 and 76 and men aged between 76 and 80. There was an 18% increase in the number of appropriate patients being identified to the service (Figure 2).
There was little change in the areas from which referrals to the service were received, with most coming from medical wards. However, there was an increase in the number of patients referred from surgical wards, possibly because more older patients were found to be undergoing complex procedures (Figure 3).

Overall, the referral system enabled identification of appropriate patients to be transferred to COTE/rehabilitation. This led to a decrease in overall total hospital length of stay by 28 days (Figure 4) - a significant improvement that was beneficial to patients and service delivery.

The main conclusions drawn from the evaluation were that the referral service increased the number of patients appropriately transferred to COTE/rehabilitation. Patients were also more medically stable and aware of the rehabilitation process before transfer. However, in relation to discharge destination, the data may not provide an accurate picture as there were a number of patients in the pre-referral data whose discharge destination was unknown (Figure 5).

**Act** Several cycles of change have aimed to improve the referral process since the introduction of the ANP-led service. In 2007 the ANP team decided to withdraw the referral form from the wards because inappropriate referrals were still being made, despite amendments to the form to try to improve the quality of information provided by the referrer to aid the ANP’s decision making. The form was replaced by a book left on the ward with a flow chart attached to its front, outlining the pathway for potential referrals to COTE/rehabilitation. A new method of working was also trialled, with one ANP in the team seconded from their ward-based role to the role of clinical rehabilitation/referral/liaison nurse practitioner. The aim of this change was to explore whether a dedicated ANP role would improve referrals by being proactive and seeking suitable patients, rather than waiting for referrals to be made. The team also thought that communication and understanding of COTE/rehabilitation could be enhanced by a dedicated individual acting as an advocate for the service, providing education and understanding of COTE/rehabilitation and the unique needs of older people. The project ran over two weeks, after which evaluation of the changes took place. This was compared with the two-week period before the changes took place.

**Findings**

Conclusions drawn from this brief period of change indicated that there were more patients referred for review during this period than before. An ANP dedicated to referrals was advantageous from an educational and advisory perspective regarding discharge, appropriate referrals, when to start a nursing assessment and the required clinical care and further investigations. There was positive feedback about the two-week period from staff and managers as it led to consistent communication and prompt transfers of patients to appropriate beds, and all beds were filled to their maximum capacity. Unfortunately, there was no cover for the ANP who undertook the role and it was thought that any longer than two weeks out of the clinical
environment would have compromised the existing ward service.

The evaluation findings suggested that employment of a nurse practitioner in a dedicated COTE/rehabilitation referral role would be advantageous to patients and the service as a whole. It could potentially mean the service would evolve to a point where patients could be jointly managed by the ANP team on acute wards rather than wait for transfer to a COTE bed. To date, the role has not been appointed due to lack of funding for a new post; however, other changes to the service have taken place. The system continued with the ANPs having link wards across the hospital, using books for referrals along with referral forms.

In January 2008, several incidents regarding inappropriate transfers were reported at a COTE clinical governance session. After the session, a decision was made to return to using referral forms across the hospital to see if they improved identification and staff understanding of the type of patients who could be referred. Although previous use of the forms had not been fully successful, the ANPs thought they did offer some guidance to staff about who should be referred. It was also thought that the forms would be a source of data collection to identify gaps in the system and aid overall understanding of those who made referrals for input from COTE ANPs. The exclusion criteria remained largely unchanged, however, MMSE<15 was removed from the criteria, as it was thought that subjective cognitive analysis of each patient was required.

The form was distributed across the hospital with education provided to ward staff on the change in referral process.

The service was evaluated in January 2012, before the referral form was reintroduced, and then in March 2012 after its reintroduction. The number of referrals identified in January 2012 was 87, with 43 patients accepted into the service and 44 not accepted. In March 2012, the number of referrals fell to 70, with 46 accepted and 24 not accepted. This could be because referrers were applying more thought before referring patients to the COTE service. This is also reflected in changes to the reasons for non-acceptance from January to March 2012 (Box 1).

Medical wards continued to make the most referrals - more than 50% of the total amount of referrals in both periods. A further evaluation in June 2012 showed another drop in the number of referrals made (n=45), an increase in the number of patients accepted and a decrease in the non-accepted patient ratio (n=30:15). There were also fewer reasons for non-acceptance of patients into the service (Box 2).

The June 2012 evaluation recommended continued use of the referral forms, as their reintroduction had a significant effect on the number of overall referrals, improved quality and reduced workload for the ANP team. The overall improvement may have been due to the minor amendments that were made to the wording on the form, such as changing exclusion criteria to discretionary criteria, as well as the education that was provided to ward staff, doctors and therapists on use of the form before its reintroduction.

**Conclusion**

The introduction of any new health service system requires careful planning and thought. Using

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<tr>
<th>Box 1</th>
<th>Reasons for non-acceptance January and March 2012</th>
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<tbody>
<tr>
<td>January 2012 (pre-change)</td>
<td>No rehabilitation goals, Clinically unwell, Shared care/mental health input required, Needs neurological rehabilitation, General deterioration, Needs trauma and orthopaedics, Needs repatriation, Needs physiotherapy review, Partial weight bear ability, Does not meet criteria, Abnormal bloods, No rehabilitation potential, Refusing physiotherapy</td>
</tr>
<tr>
<td>March 2012 (post-change)</td>
<td>Community team accepted, Non-weight bearing, Shared care/mental health input required, Out of area, Clinically unwell, No longer requires rehabilitation, No diagnosis, Increased/unexplained confusion</td>
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### Box 2 Reasons for non-acceptance June 2012

- Clinically unwell
- No rehabilitation goals
- Out of area
- Physiotherapy review needed
- Patient discharged on day of review
- For nursing home placement
- Patient refused referral
- Community rehabilitation required, not inpatient rehabilitation
a service improvement model helped to structure implementation of the ANP-led referral service and made required ongoing changes to its operation. Reflective practice was also adopted as a means of self-evaluation, given that we were scrutinising our own service. This was considered an important aspect of the evaluation process to reduce bias and increase credibility of the changes undertaken (Andrews et al 1998, Rolfe et al 2011).

There were many positive outcomes from the service intervention. A number of limitations were also observed, mainly around the time required for ANPs to visit the link wards and carry out patient assessments. The ANPs run the service alongside their busy ward-based day jobs, which has placed pressure on them to work longer hours.

Applying criteria to referrals has increased the appropriateness of patients transferred to COTE/rehabilitation. However, the application of criteria precludes some patients being transferred to the service who may need specialist older people’s care. More frail older people with multiple medical problems are being admitted to hospital than ever. It may, therefore, be time to review the overall COTE service to accommodate all frail older patients and consider developing and expanding the service to fit the needs of the patient population, rather than making the patient fit the service, a concept supported by WAG (2011) and the Royal College of Physicians (2012).

References


