Nurse-led management of chronic disease in a residential care setting

Julie Neylon reports on a project to carry out annual reviews of chronic disease management for care home residents to reduce the number of unplanned hospital admissions

Abstract

Introduction of the advanced nurse practitioner (ANP) role has enabled nurses to develop their clinical knowledge and skills, providing greater service provision and improved access to healthcare services. It can also help with the challenges of providing care to an ageing population in primary care.

This article reports on the evaluation of an ANP-led clinic in two residential care homes that provides annual reviews for chronic disease management (CDM). A mixed method approach was used to evaluate the service using clinical data obtained from the electronic patient record system and software and patient satisfaction questionnaires.

The number of patients receiving CDM reviews in the homes increased as a result of the clinic. Completed satisfaction questionnaires further demonstrated patients’ satisfaction and willingness to engage with the service. The service highlights the ANP’s effectiveness in managing residential care home patients with chronic diseases and improving their access to healthcare services.

Keywords
advanced nurse practitioner, chronic disease management, healthcare inequalities, long-term conditions, older people, residential care

Management of patients with chronic diseases is an ongoing topic of discussion in general practice. As the UK population is living longer the number of people who have been diagnosed with multiple chronic diseases is increasing (Wagner et al 2001, Coulter et al 2013).

Chronic diseases affect 80% of people over the age of 85 (Coulter et al 2013) who account for 50% of all GP appointments, 64% of all outpatient appointments and 70% of all inpatient beds (Department of Health (DH) 2012). It is therefore not surprising that chronic diseases are the main cause of death and disability in England and are increasingly becoming the greatest financial burden on the NHS (DH 2012, World Health Organization 2012).

One in six people over the age of 85 lives permanently in a care home setting (NHS England 2014a), yet chronic disease management for these patients remains challenging in general practice and, in some cases, overlooked.

Inequality in the provision of health care to such vulnerable groups has been recognised by the DH (2002, 2010) who have stressed that primary care is pivotal in overcoming such inequalities.

A restructuring of primary care services is imperative to make health and care systems fit for an ageing population (Oliver et al 2014). Home-based care is required to maintain the health of the older population, providing them with appropriate disease management and reducing the number of unscheduled and preventable admissions to hospital.

NHS England (2014b) proposed the development of an enhanced care service to address the problem of unplanned admissions to hospital by ensuring vulnerable patients received equity of care. This would be achieved through new primary care services and improved accessibility, a difficult task for practices where staff are already struggling to manage workloads. In many general practice settings practice nurses do not provide home visits and
district nurses are not trained in all the required aspects of chronic disease management.

The introduction of advanced nurse practitioners (ANPs) as providers of chronic disease management for housebound patients is an innovative way of combining their extended role and skills to manage the complex needs of patients who are otherwise unable to access services.

Service

Background The need for a service to provide chronic disease management for people in residential homes was highlighted when auditing the quality outcomes framework (QOF) register. Most residents were exempt from the QOF indicators because they were unable to attend the surgery, a clear barrier to accessing health services.

The aim of the service was to ensure these patients received equal access to chronic disease management care. A weekly ANP-led chronic disease management clinic was set up in two residential care homes in south Manchester, supported by local and national agendas in relation to improving primary care services to the older, more vulnerable population (DH 2012, NHS England 2014b).

Consent to deliver and evaluate the project was obtained by South Manchester Clinical Commissioning Group and the practice manager where all the patients recruited were registered.

To meet the inclusion criteria for the service, the patients recruited had to be registered at the practice, reside in one of the two care homes and have diagnoses of one or more chronic diseases registered on QOF.

Once identified, all of these patients were contacted by letter. The letter described the service and its aims, stating what would happen during the visit and advising patients to invite family members to attend if they wished. An opt-out slip was also sent for patients to return to the practice if they did not want to participate. The ANP also explained the aims and purposes of the service to the home managers.

After two weeks, follow-up letters were sent to all patients with a date and time that the ANP would be attending. A total of 19 patients were identified as meeting the inclusion criteria.

One patient died before the project began and two patients now living in the homes were not registered with the practice when the ANP clinic was due to take place, therefore 16 patients were recruited. The clinic took place for one afternoon a week for six weeks.

The ANP aimed to provide all aspects of the chronic disease management annual review as received by patients able to attend the practice. During the review the ANP identified patients’ understanding of their diagnosis, how effective they were at managing the condition and their understanding of medication regimens.

Appropriate clinical tests were ordered to assess disease management, and health promotion interventions were explored with patients individually. The ANP could then make changes to medications as clinically indicated, reducing the need for patients and home managers to wait for a GP visit.

Study

Aims The aims of the service were to:
- Provide chronic disease management care to patients in a residential care home setting by providing weekly ANP-led clinics.
- Improve residents’ access to health care.
- Improve communication between residents and staff.
- Reduce the need for multiple clinicians to provide domiciliary visits thereby reducing fragmented care.
- Reduce GP visits to residents for chronic disease management.
- Reduce unscheduled admissions of residents to hospital for chronic disease management.

Methods A mixed-method approach was used to evaluate clinical and patient satisfaction with the service. All patients engaged in the project were asked to complete a satisfaction questionnaire (Table 1). It asked questions about the ANP’s listening skills, understanding, compassion and ability to explain as well as an overall rating of the service.

To assess the clinical effectiveness of the project a comparison was made between the number of patients who had received an annual chronic disease management review in March 2014 before the project began and the number who had received an annual chronic disease management review by March 2015 after the project was in place. March was chosen because it signified the end of the QOF year when all clinical targets are calculated.

A data comparison was also made identifying the number of GP visits requested in relation to chronic disease management and unscheduled hospital admissions related to chronic disease management during these months. All 16 patients involved in the project were sent satisfaction questionnaires of which 14 were completed and returned. Data were then collated on responses to the individual questions as well as an
The overall percentage relating to patients’ opinion of the standard of service experienced.

EMIS, the electronic patient record system and software used in primary care in England, was used to access clinical data about the number of chronic disease management reviews pre- and post-project implementation along with the number of GP visits and unscheduled hospital admissions pre- and post-project.

**Ethical considerations** Because this was a service evaluation, NHS research ethics approval was not required. However, consent was gained from the practice manager and GPs. All the patients were contacted by letter before the project to explain its purpose and were sent an opt-out option included with this letter. All patients who were asked to participate consented to the ANP consultation.

**Results**
A 100% increase was found in the number of patients who had received a chronic disease management review by March 2015 compared with those who had received a review by March 2014. None of these patients had received a chronic disease management review before the project began and they

### Table 1 Satisfaction questionnaire

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Dear Patient,

We would be grateful if you would complete this questionnaire about your visit from the advanced practitioner today. This is a new service being provided by the practice and your feedback from the survey will allow us to identify its success and any areas you feel may need improvement. Your opinions therefore are very valuable. Please tick the box most relevant to your experience.

- Making you feel at ease (being friendly and warm towards you, not cold and abrupt)
- Letting you tell your story (giving you time to describe your worries in your own words)
- Really listening (paying close attention to what you were saying)
- Fully understanding your concerns (communicating that she has accurately understood your concerns, not overlooking anything)
- Showing care and compassion (seeming genuinely concerned, connecting with you on a human level, not being indifferent or detached)
- Being positive (having a positive approach/attitude; being honest but not negative about your problems)
- Explaining things clearly (fully answering your questions, explaining clearly, giving you adequate information)
- Helping you to take control (exploring with you what you can do to improve your health yourself)
- Making a plan of action with you (discussing the options, involving you in decisions)
- Overall, how would you rate the advanced practitioner’s visit today?
had been exempt on the QOF due to a lack of service provision.

When comparing data from March 2014 against March 2015 the project did not appear to have an effect on the number of GP visits for problems relating to chronic disease highlighting one GP visit in March 2014 (pre-implementation) and one GP visit in March 2015 (post-implementation). Likewise, there was little effect on the number of unscheduled hospital admissions for chronic disease management-related problems during this time. However, had the project been implemented over a 12-month period (January 2014 to February 2015 pre-project implementation), its effect would have been more identifiable.

The data for this period of time showed 16 GP visits in relation to chronic disease management, three of which resulted in admission to hospital and all of which may have been avoided had the ANP service been implemented at this time.

On one occasion when the ANP took routine bloods to assess disease control the patient was found to be severely anaemic and was given the appropriate iron supplement and unscheduled admission to hospital was avoided. Likewise, on obtaining a urine sample from another resident it was identified she had a urine infection. The ANP was able to prescribe medication for this infection, ensuring the patient was managed effectively in the home.

Responses from the 14 completed patient satisfaction questionnaires were categorised as Poor, Fair, Good, Very Good, Excellent and Outstanding. Of the overall questions, 43% were answered as Excellent, 25% as Very Good and 32% as Good. None of the questions was answered as Poor, Fair or Outstanding.

All patients rated their overall experience of the service as Good, Very Good or Excellent, indicating its positive effect on those involved. Home staff distributed the questionnaires in the absence of the ANP, enabling patients to complete them honestly and without ANP encouragement. However, data from the questionnaires was collated by the ANP, which could have introduced bias. A statement that highlights the benefits of the project to residents and staff from one of the home managers expressing her views on the ANP service is shown in Box 1.

**Discussion**

The number of patients recruited was small and a limitation on demonstrating the overall success of the project. However, data analysis showed a 100% increase in chronic disease management reviews since the project was implemented. Its success was further highlighted by most patient satisfaction scores being Good, Very Good or Excellent.

The project showed that residents with chronic diseases could be managed in their home environments by the ANP, providing them with improved access to healthcare services. Ensuring that all residents had access to the service and not only those registered at the practice would be necessary to ensure full equity of service.

If more patients had been recruited it is expected that the results would have continued to show improvements in chronic disease management for this group.

Implementation of the service on a larger scale by offering it to all housebound patients would further address the chronic disease management needs of this vulnerable group, who may be unable to access health services (DH 2002, Fitzpatrick et al 2004). The DH (2012) and NHS England (2014b) stress the importance of providing patient-centred services to groups such as housebound patients to ensure their health outcomes are improved and unscheduled hospital admissions reduced.

The project met these expectations by providing a service to patients in their home environment. Not only does this improve the patient’s experience, allowing them to feel valued and in control of their own care, it also ensures patient safeguarding (Pfeil and Howe 2004).

The project has created and improved links between the ANP, GP, residential care homes and wider teams, which would be essential for it to continue to work effectively.

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**Box 1**

Statement from home manager about advanced nurse practitioner service

‘Over the past three weeks Julie has been working with a number of the residents. This service has been beneficial to residents and staff.

‘I think that this service would be valuable to all care homes as we are not always able to identify underlying problems that residents may have and this is not something that the GP would usually check.

‘Recently, it has been identified that one of our residents is extremely anaemic; this was highlighted as a result of Julie’s visit. This issue may have gone unnoticed if Julie had not visited.

‘Julie has a lovely manner and was friendly with the residents and staff; I would love for Julie to visit at least every three months to give each resident an overview. Also, if we received a regular service like this it would ease the pressure on the GPs who on occasion have to visit for minor ailments.’
There is only one ANP in the practice so protected allocated time would be required to implement the project on a wider scale. Allocation of one afternoon a week to carry out chronic disease management annual reviews would be sufficient. However, with resources being stretched, taking time out of practice clinics to do this remains difficult. The positive outcomes shown by the data analysis and improvements to QOF targets will provide the evidence required to further develop the service.

Conclusion
The prevalence of patients with chronic diseases has increased in recent years (DH 2012) and their treatment and management are a significant challenge facing the NHS (Coulter et al 2013). Because people live longer, the number of housebound patients with chronic diseases is increasing (DH 2012). A restructuring of primary care services is essential, therefore, to make health and care systems fit for an ageing population (Oliver et al 2014) and to ensure that older people receive equity of care.

The ANP-led service addresses the chronic disease management needs of this vulnerable population. It is an improvement in the management of their care that must be included in future service provision (Ellen and Barrett 2012).

References