Patients with one or more long-term conditions often take multiple prescribed medications. A joint approach to drug management improved quality and cut costs.

Complex medicines management

In this article...

- Long-term conditions, polypharmacy and concordance
- Working with patients to stop, reduce and change medication
- Improving care while cutting prescription costs

Authors: Ruth Thomas is specialist practice nurse; Carol Kilbey is practice pharmacist; both at NHS Milton Keynes.


Patients with long-term conditions (LTCs) often take many prescribed drugs. A specialist nurse and pharmacist at a Milton Keynes practice identified the need for a more coordinated medication service for patients with LTCs who take multiple medicines. Adopting a holistic approach, they set up a joint medication management project. This article describes how the one-year project improved quality and safety, reduced out-of-hours presentations and hospital admissions, and cut costs.

More than 15 million people in England have one or more long-term condition (LTC), and 60% of these are aged 65 and over (Darzi, 2008). Recent government white papers, including Our Health, Our Care, Our Say (Department of Health, 2006) and High Quality Care for All (Darzi, 2008) pledged to improve the safety and quality of care for these people.

High Quality Care for All said there need to be “true partnerships” between patients and healthcare professionals, underpinned by care plans and better patient information (Darzi, 2008).

According to the Department of Health, care planning means fewer emergencies and fewer outpatient appointments. More than nine million people in England now have individual care plans, saving the NHS around £1bn (DH, 2009a).

Zwarenstein et al (2009) found that multidisciplinary approaches can improve care quality and outcomes, while Øvretveit (2009) said that suboptimal care and adverse drug reactions are a huge financial burden to the NHS.

Improved LTC management should therefore result in a more effective use of limited resources.

Medication management can be complex for patients with LTCs, with many taking multiple prescribed medications. This project aimed to improve the quality of care for patients receiving multiple prescribed medicines for one or more LTC, using a holistic, evidence-based approach.

Background

We recognised that some patients with LTCs at a Milton Keynes surgery were accessing healthcare in an erratic manner, with frequent presentations to out-of-hours services. Many were receiving polypharmacy, yet their LTCs were being managed in separate clinics that focused on one condition only. Most of them did not meet the criteria for referral to a community matron and the surgery served an area of high deprivation.

Polypharmacy has been described as the use of multiple medications, or the administration of more medications than are clinically indicated, representing unnecessary drug use and is considered to be more common among older people (Steinman, 2007).

A small pilot project, over six months during 2007-08, involved multidisciplinary reviews of four patients with complex needs. This was funded and supported by the local prescribing incentive scheme and it reduced unscheduled consultations, prescribing costs and adverse drug effects. The success of the project led to additional funding for two years from Quality-MK, a local quality improvement programme funded by The Health Foundation (www.qualitymk.nhs.uk).

The project

Forty patients were involved in the one-year project, which started in 2008. Selection was based on one or more of the following criteria:

- Frequent visits to the accident and emergency department, or other emergency out-of-hours services, and/or frequent emergency appointments with a GP;
- One or more long-term condition;
- Four or more prescribed medications;
- Overuse of medication, particularly analgesics;
- Not meeting community matron or district nurse criteria.

Aims and objectives

The aim was to provide a joint review of patients’ LTCs and their medication, and set patient-centred goals to ensure optimal management. The objectives were to do the following:

- Address health inequalities in a deprived area;
- Identify patients with an LTC who would benefit from a multidisciplinary approach to improving care quality and patient satisfaction;
- Identify and set patient-centred goals,
Outcomes of all 40 multidisciplinary patient reviews

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Preparation time £800

Total spent £3,100
Total saved* £24,560

* not including admissions/out-of-hours/oxygen/blood test monitoring for warfarin

using care planning to improve patient satisfaction, empowerment and engagement, and increase development of self-management skills;

» Improve how patients access healthcare and reduce unscheduled consultations and unnecessary hospital admissions;

» Reduce prescribing costs and risks of adverse effects from polypharmacy.

Outcomes were measured by monitoring out-of-hours presentations and hospital admissions, auditing staff costs and prescribing data over the one-year study, and through patient and carer feedback.

Patient review preparation

Older people are at greater risk of polypharmacy because of the increased likelihood of multiple diseases and increased sensitivity to adverse effects and drug interactions (Sains, 2009).

Preparation before the patient reviews was essential so the consultation could focus on the patient’s needs.

A full medication review involving the patient’s GP and pharmacist was carried out. This included reviewing: the clinical need for each medication, and the continued need for those with no therapeutic benefit; and the side-effects of each medication to identify risk factors for adverse drug reactions, and to avoid treating side-effects with another drug.

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Nursing Practice

Innovation

We also reviewed consultant letters and medical notes and ensured all blood tests and investigations were up to date.

Patient review
Each patient had an hour-long appointment at the surgery with the specialist nurse and the practice pharmacist. Home visits were arranged for those who had difficulty attending the surgery, or if it was felt it would be better to conduct the review at home.

The initial consultation included:
- A full patient history and examination, and investigations such as blood pressure monitoring;
- An assessment of patients’ understanding of their long-term conditions and medication, including concordance;
- An assessment of the need for education and support, particularly in developing self-management skills;
- A discussion about any concerns with medication or barriers to treatment;
- Identifying and setting realistic goals.

The consultation allowed patients to discuss their needs and concerns in an informal and unrushed atmosphere. It also enabled them to become actively involved in decision-making and goal-setting.

We explained to each patient that any proposed changes to medication would have to be agreed with their GP. Consultations and medication changes were documented in patients’ records, which were flagged to show they had taken part in the complex patient scheme.

To improve communication between healthcare professionals, the practice pharmacist developed a document linked to patients’ practice medical records which could be accessed by the primary care team. All patients were given a copy of the document and the majority had self-management plans developed in partnership with the nurse and pharmacist.

Results
Positive measurable outcomes were achieved in all 40 patient reviews. The project saved more than £24,500 in prescribing costs over the year, and cost just £3,000. Out-of-hours presentations decreased from 95 to just two, and hospital admissions were cut from 43 to two over the year (see table).

Five patients were referred to other services, including smoking cessation and haematology, resulting in further commodity cost savings.

All patients had changes made to their medication, including dose reductions, stopping medication no longer considered necessary, and changing to more appropriate inhaler devices. Medications such as statins were also switched to more cost-effective formulations where appropriate.

All patients expressed satisfaction with the service, and the open and honest consultation style, which allowed for advice and education. This is illustrated in the case study above.

Discussion
All patients said they were satisfied with the review and their care, and had better knowledge about their LTCs.

The project saved prescribing costs, reduced adverse drug reactions and decreased out-of-hours presentations and hospital admissions. It also improved quality of care and patient satisfaction.

As a nurse and a pharmacist our combination of knowledge covered LTC assessment and management; and pharmacotherapy and drug interactions in older people. This was invaluable in improving patient outcomes.

The same multidisciplinary review framework has been used successfully in two other surgeries in the primary care trust, and Milton Keynes PCT has decided to fund a full-time pharmacist to work with other healthcare staff in reviewing all medications in nursing homes. The community matrons have also reviewed and changed their referral criteria as a result of the project’s outcomes.

Conclusion
This project, led by a specialist practice nurse and practice pharmacist, improved the quality of patient care and outcomes.

It reduced overall prescribing and unscheduled consultation costs, and was integrated into other surgeries in the area. Significant improvements are achievable from a multidisciplinary approach, and all the team felt personal benefit from working in this way. Visit tinyurl.com/mk-complex-meds for further information about the project. NT

References

CASE STUDY
Ivy Green had cardiorespiratory disease with symptoms of disabling breathlessness, leg oedema and poor mobility, which affected her quality of life, often requiring unscheduled consultations and a hospital admission resulting in high-dose diuretics.

During the consultation, she confided she rarely took the diuretics due to problems with incontinence. A review allowed for a large reduction in the dose, which was well tolerated by Mrs Green.

As a result, her symptoms were well controlled, her mobility and quality of life improved and there was no need for more out-of-hours or unscheduled consultations.

“Politicians should stop reorganising the health service quite so often”
Elizabeth Robb p24

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For the reviews to be successful, patients need to be motivated to change, and to understand how they can benefit from being involved in their own care-planning and negotiated goal-setting (DH, 2009b). Patients with serious mental health issues and drug or alcohol problems were therefore considered beyond the scope of the project.

Further limitations included time restraints, and staff changes. To overcome some barriers, specific time was allocated to the practice nurse each week, and the pharmacist developed a computer template linked to medical records that all surgery staff could access.

Support from PCT stakeholders was enabled by involvement with Quality-MK, which also allowed wider promotion of the work locally. This has led to changes in practice in other surgeries within NHS Milton Keynes.

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