An evaluation by patients of pharmacist-led medicines management in southern England

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Abstract

Aim
To assess patient satisfaction with the domiciliary service provided by the medicines management team (MMT) within the Woodlands elderly resource team in Poole, Dorset. This team aims to prevent hospital admission, and to improve the patient experience of pharmaceutical care.

Design
Structured interview in domiciliary setting

Subjects and setting
The study population, drawn from users of the service, comprised 22 men and 33 women with a mean age of 79.8 years interviewed in their own homes. Patients were asked to respond to 18 questions, three of which required a "yes", "no" or "don’t know" response and the other questions used a five-point Likert scale.

Results
73% of respondents were unaware they had problems taking medicines before the initial MMT visit, however 89% agreed that interventions made helped them to take their medicines correctly. 84% of subjects were accepting of changes made to their medicines by the MMT even when they did not understand the changes. A high proportion of the study population understood and accepted the need for the MMT to discuss their medicines with their GP. Overall, 78% of patients were very satisfied and 22% satisfied with the service provided by the team.

Conclusions
The evaluation suggests that the MMT satisfies its key aims: good levels of communication, concordance and information-sharing is achieved between patients and the team. Research suggests these attributes are valuable in optimising pharmaceutical care.

T he Woodlands elderly resource team is a multidisciplinary, intermediate care and rehabilitation team based in Poole, Dorset. This study set out to evaluate the service provided by the medicines management section of the team using patient interviews.

The medicines management team (MMT) consists of pharmacists and pharmacy technicians who visit and provide pharmaceutical care to patients in their homes. The key aims of the service are to prevent hospital admission, provide independence for patients when taking medicines and to improve patients’ experiences of pharmaceutical care. Patients are referred to the MMT by health and social care professionals. Occasionally referrals are received from patients’ families or friends, but these referrals are redirected via the patient’s GP.

The assessment process covers both clinical appropriateness and issues around compliance with drug regimens. Interventions include patient education, regimen simplification, dose titration, pain management and provision of a range of compliance aids to help patients take their medicines.

The team communicates with other healthcare professionals involved in a patient’s care to optimise outcomes. Communication is via the normal referral channels for the particular service needed by a patient, for example, a Parkinson’s nurse specialist, palliative care nurse specialist, sight and hearing loss team and social services care managers.

Data reported in the pharmacy White Paper of April 2008 suggest a reduction in hospital admissions for patients who have had pharmaceutical care provided by MMTs. Anecdotal evidence from members of the MMT suggests a link between patient satisfaction with the service and good relations between the patient and the pharmacist. This would further strengthen the motivation to co-operate with suggestions from the pharmacist. This complements with one of the goals of the NHS plan published in 2000, which outlined the need for patient’s views on services to inform service development.

This study is not designed to support or refute any other published work. The authors suggest it may be the first study to elicit patients’ views about a domiciliary service since a literature search did not find any similar studies.

Methods
The researcher was a final-year pharmacy undergraduate who did work experience with the Woodlands MMT. The researcher was not known to any of the patients enrolled in the study and had no role in providing MMT services to any of the participants.

Patients’ eligibility for the study was limited to those who had been managed by the Woodlands MMT for at least the previous 28 days. Patients who had been discharged to the continuing care of a community pharmacy were excluded, as were patients for whom agency carers were employed to organise medication. Patients who were helped with their medicines by a carer such as a family member, were not excluded provided they still had involvement with their own medicines. Patients with severe cognitive loss were excluded, as were those presenting a potential risk to the researcher as indicated by an MMT risk assessment.

The data collection period was July 2007 to February 2008. Of the 130 MMT patients who could potentially have participated in the study, 67 satisfied the inclusion criteria. Five of those refused to take part on the grounds that they could not spare the time, and seven could not take part as a result of their admission to a hospital or care home during the data collection period. The proportion of men to women who were excluded was similar to that of the study population (34.6 per cent of men in the excluded population versus 40 per cent in the study population). The mean age...
of excluded patients was 82.1 years, slightly higher than the study population. The study population consisted of 55 subjects (60 per cent female), with a mean age of 79.9 years (range 35–97 years). Thirteen subjects had been managed by the MMT for 29 to 168 days at the date of interview and 17 subjects for longer (169 to 921 days). The mean number of regular long-term medicines taken by the study population was eight (range 2–18; mode 8), the mean number of chronic diseases diagnosed in the study population was three (range 0–9; mode 3). For 29 per cent of subjects another person was present during the interview. In all cases this was a family member who was present as an observer with the permission of the interviewee. The type of intervention made by the MMT was recorded; 50 of the 55 patients had their medicines repackaged into a multidose electronic dispenser. The remaining two patients had realignment of medicines. This was done to ensure that prescribed quantities were adjusted so that reordering of all medicines was carried out at the same time each month. The researcher designed the questionnaire (available from the author by request), included concepts in it that were developed through observation, information gathered about the MMT service, consultation with its lead pharmacist and a review of literature and expert reports. The questionnaire was adapted into a pilot study for content validity (whether it is a sensible measure for the investigation being undertaken), ease of use, acceptability and ability to be understood. Minor adjustments were made following patient feedback. Eligible patients were contacted by telephone. The study was explained to them and they were invited to take part. If they agreed to participate an appointment was made for the researcher to visit them at home to conduct the interview. A questionnaire was completed by the researcher during a direct structured interview, where all subjects were asked the same questions. This method was chosen to ensure the largest possible response rate and to obtain quantitative data for analysis. It was decided to offer a standardised explanation to any questions not fully understood by the respondent, to minimise interviewer bias. For example, the standard explanation given to define a chronic disease was undertaken, ease of use, acceptability and ability to be understood. Minor adjustments were made following patient feedback. Eligible patients were contacted by telephone. The study was explained to them and they were invited to take part. If they agreed to participate an appointment was made for the researcher to visit them at home to conduct the interview. A questionnaire was completed by the researcher during a direct structured interview, where all subjects were asked the same questions. 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The questionnaire consisted of three questions to which the respondent could reply “yes”, “no” or “don’t know”. Fifteen questions used a five-point Likert scale. All had a nil response option. Since all the participants in the study had some degree of cognitive impairment, we decided to exclude negatively phrased statements because they require a level of mental agility for which the patients had not been assessed. If patients had experienced difficulty in understanding the statements this might have confounded the results. For each set of questions the patient was presented with large-print laminated cards explaining the type of response required. Each question was read to the patient by the researcher, who recorded the response. Any comments volunteered by the patient during the interview were recorded by hand on the questionnaire. Interviews ranged from 20 minutes to one hour.

Any information relevant to the study and not obtainable from the patient was obtained from the MMT notes. Diagnosis of chronic diseases not fully understood by the respondent, their medicines, 14 per cent disagreed and the remainder were undecided or did not respond. A nil response was recorded if the subject was unable to recall any specific changes made.

Fifty-eight per cent of patients either strongly agreed or agreed that the team involved them in any changes made to their medicines, 14 per cent disagreed and the remainder were undecided or did not respond. A nil response was recorded if the subject was unable to recall any specific changes made.

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When asked whether the medicines team were able to answer any questions about their medicines, 67 per cent strongly agreed (27 per cent did not give an answer). When asked whether the information provided by the medicines team was useful, 62 per cent either agreed or strongly agreed (31 per cent did not give an answer).

Eighty-five per cent of patients strongly agreed or agreed with the statement “I understand the need for the medicines team to discuss my medicines with my GP”. Two patients disagreed with this statement, one of whom was a disease patient commented: “I no longer have any dignity to respect.”

Ninety-six per cent of patients strongly agreed or agreed that “the medicines team members behaved in a professional manner”. Seventy-eight per cent of patients were very satisfied and 22 per cent were satisfied “with the overall service provided by the medicines team”.

Forty-eight of the 55 subjects volunteered comments during the interviews. Themes that emerged included the effect of interventions and changes made by the MMT, the GP, and patient, problems encountered with their medicines and how the service affected their independence. Volunteered comments are discussed below.

Discussion
All subjects interviewed were at least satisfied with the service provided by the MMT and responses indicate that patients perceived one or more benefits from the service. A high proportion of respondents thought that they had no problems taking their medicines before being visited by the MMT. The response to this question largely depended upon the regimen between the MMT, the GP, and patient, problems encountered with their medicines and how the service affected their independence. Volunteered comments are discussed below.

A key aim of the medicines management service is to provide independence for the patient when medicating; as discussed earlier most believed that the service contributed to their level of independence but some were unsure how the service impacted in this respect. Subjects’ definitions of independence varied. To some the service assisted their

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dependence if they were housebound or lived alone since it enabled them to obtain their medicines. Others felt that with the input of the team they were able to remain in their own home for longer as tools were provided to enable them to manage their own medicines independently.

Two subjects commented that the service takes the responsibility for medicating away from the patient:

“Since coming out of hospital my memory has not been so good and I didn’t know where I was with medicines, Woodlands takes the responsibility and worry from me.”

Another patient said:

The concept [MCA] is brilliant. It takes the responsibility away from somebody who is unwell and not able to make reasonable decisions about their medicines.

This loss of responsibility for a patient’s own medication is identified as a disadvantage by Nunney and Raynor in the use of MCAs. However, despite reducing their responsibility for their own medication, it was reported by patients in this study that the use of MCAs made a positive contribution to their independence.

There was no indication that any advice given by the MMT was rejected or resisted or that the subjects felt undermined in any way, as suggested by Salter et al. Their 2007 study found that advice given to patients by a pharmacist during medication review “was often resisted or rejected”, concluding that “the advice-giving role of pharmacists during consultations with patients … has the potential to undermine an MMT pharmacist’s sense of competence, integrity, and self-governance.”

The Salter study was carried out in a different context to this study, which could account for the apparent difference in response. In Salter, the medicines review was not related to a particular service, whereas this study was undertaken on behalf of a service the patient would have been familiar with. In the case of this study all subjects were in the service by agreement, it might be appropriate to investigate any patients who had been visited by an MMT pharmacist but who had chosen not to participate in the service.

Limitations of this study include the lack of generalisability to other populations because the MMT service is not based upon a standard pharmaceutical care model. The small sample restricted the statistical validity of any tests performed upon the data; increasing the period for data collection would have increased the study population.

There may have been a degree of bias: all subjects at the time of interview were being supported by the MMT. There may have been an element of social desirability in responses leading to an inclination to answer positively if it was thought that the service provided by the MMT might be jeopardised if subjects responded in negatively. However, only five patients declined to take part in the survey, minimising self-selection bias.

In 29 per cent of interviews a relative of the subject was present; any input from this person may have influenced responses from the patient. In some cases useful feedback was received since the service had had an impact on that person, for example, a spouse who jointly managed the subject’s medication before input by the MMT. In these cases it might have been appropriate to have an independent evaluation of those involved in the care of patients of the MMT.

The evaluation suggests that the MMT satisfies its key aims to provide independence for patients when taking medicines and to improve the patient experience of pharmaceutical care. The evaluation identified a good level of communication and information sharing between patients and the MMT thought to be valuable in optimal pharmaceutical care. This, at least partly, fulfils the Department of Health milestone in the National Service Framework for Older People: “By 2004: Every primary care group or primary care trust will have schemes in place so that older people get more help from pharmacists in using their medicines.”

Further research in this area might assess the effect MMT interventions have on adherence to treatment. If a high level of adherence is achieved this may lead to better health outcomes, supporting data that indicate a reduction in hospital admissions for patients who have had pharmaceutical care provided by the MMT.

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References