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# Managing patients at home — as a domiciliary pharmacist

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A new model of multidisciplinary team working with health and social care is being developed in Exeter, with domiciliary pharmacists included in the team. This article describes how a former hospital pharmacist and community pharmacist have worked with the local NHS trust to develop the service



Domiciliary visiting provides a clearer picture of how a patient manages his or her medicines when they are back at home

**D**evon Primary Care Trust and Devon County Council have developed multidisciplinary health and social care teams for adults within primary care “clusters”. These complex care teams include domiciliary pharmacists, community matrons, occupational therapists, physiotherapists, community care workers, social workers, community mental health and voluntary sector representatives.

The complex care teams meet weekly at a “core group” to discuss individual patients, share information and take a proactive approach to managing adults at risk. A single telephone point of contact to the complex care team is available for GPs, hospital pharmacists, discharge and social care co-ordinators plus other health and social care professionals who wish to refer patients to the service. Following a call to a central telephone number, a cluster co-ordinator directs the referral to the appropriate team member.

The new service aims to improve management of patients with long term conditions or complex care needs in the community.

It has been estimated that medication problems are a major cause in at least 10 per cent of elderly care hospital admissions.<sup>1</sup>

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Over half of the NHS drugs bill is spent on older people, but up to 50 per cent of elderly people may not be taking their medicines as recommended, thereby reducing their effectiveness.<sup>2</sup> As people get older their use of medicines tends to increase; four in five people over the age of 75 take at least one prescribed medicine and 36 per cent take four or more medicines.<sup>1</sup>

Recommendations from the National Service Framework for Older People suggest patients and their carers need support if they are to take their medicines as prescribed.<sup>3</sup> Domiciliary pharmacists can provide support with medicines management, enabling older people to live independently in their own homes and avoid unnecessary hospital admissions.

## Role of the pharmacist

The domiciliary pharmacist visits patients with long-term conditions and other adults identified as needing help with their medicines. Referrals are made during core group meetings, via the single point of contact or directly to the domiciliary pharmacist. Referral criteria are set out in Panel 1 (p136). Background information on patients is researched at their GP surgery and via the local social care IT system (Care First). Their medical history is investigated, current prescribed medicines are identified, any clinical abnormalities are highlighted and the patients’ care needs are defined.

Patients can be discussed with the complex care team, who may already be involved with their care. The patient is then visited at home where their medicines management needs are assessed and problems identified. Initial visits are often arranged when a carer or care worker will be present to gain maximum understanding of the home situation.

During the medicines review it is essential to engage with the patient to discuss his or her real medication use and understanding of treatment. There is also an opportunity to identify any over-the-counter medicines use.

The patient or carer can then be educated on the most effective use of the medicines and offered compliance aids — eg, a pill press, pill organisers, tablet cutter, Haleraid or eye-drop dispenser — if required. A personalised medicines reminder chart is also usually offered to the patient and is a useful educational tool. Any unwanted medicines are removed and delivered to a community pharmacy for destruction with the patient’s written consent.

Recommendations for discontinuing or starting medicines, changing the formulation, using monitored dosage systems, ordering blood tests or other therapeutic monitoring are then discussed with the patient’s GP.

Domiciliary pharmacists are well placed to undertake clinical monitoring of patients in the community, particularly for

## Panel 1: Referral criteria

To refer a patient to the domiciliary pharmacist service the following criteria are a guide:

- Adults aged above 18 years
- Living in own home or care home
- Taking prescribed medicines
- Having difficulty in managing to take medicines
- Unable to visit local community pharmacist to discuss medicines
- Housebound or otherwise unable to visit healthcare staff in surgery

We recommend that in the following situations the patient should be seen by a domiciliary pharmacist:

- Recently discharged from hospital or care facility
- Having medicines blister-packed or in a monitored dosage system
- Elderly and housebound (living alone is a risk factor)
- History of poor compliance
- Confused mental state
- Vision or hearing impairment
- Physical ability impairment in managing medicines
- Requiring education about new or different medicines

those with long-term conditions or patients taking “at risk” medicines. A patient’s renal function, long-term diabetic control, respiratory function and liver function can be monitored via their GP records. Narrow therapeutic range medicines (eg, digoxin, theophylline and warfarin) can be regularly monitored for the individual. The outcomes of the clinical and drug therapy monitoring are then discussed with the GP and changes to their medication made as appropriate.

Liaison with the local community pharmacist is needed to discuss changes in medication or the monitored dosage sys-

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tems, problems with ordering or delivery and the best way to synchronise repeat medicine orders. Close liaison with carers and care workers is essential and referral to other healthcare or social care professionals can be made if appropriate. The overall aim is to improve the patient’s compliance and prevent unnecessary admissions to secondary care.

Pharmacists can help patients who are at risk of emergency admission by engaging in carefully targeted medication reviews.<sup>4</sup> For patients with complex needs or long-term conditions, repeat visits may be scheduled on a regular basis.

### Challenges faced

We were appointed at the start of the domiciliary pharmacist service so were involved in developing the role and gaining patient referrals.

One issue was to learn how to access and use the different and varied computer systems at the GP practices (Emis LV, Emis PCS, Vision, Microtest and Synergie). This was essential to search patient medical histories, drug histories and define their current problems, and also to document our activities using the appropriate Read codes.

Another challenge was to engage with practitioners to market our service and gain appropriate case referrals. This was achieved by presenting to GPs, meeting community nursing teams, visiting community pharmacies and intermediate care homes, discussing the role with secondary care staff (hospital pharmacists, matrons and discharge co-ordinators), presenting to social care teams and at local practice-based commissioning conferences, and distributing our business cards.

Another issue was to adapt to a new mindset of domiciliary visiting — lone working. Visiting patients at home was a little strange at first and initially seemed intrusive but now it seems normal. Domiciliary visiting gives a much clearer picture of how a patient manages his or her medicines, and of the help that they may require to take their medicines effectively on a long-term basis.

Because we focus our service on old people, we often visit confused patients and those with memory problems, who pose individual challenges in managing their medicines in a safe manner. We found that combining the skills and experience of a hospital pharmacist and a community pharmacist enabled us to understand the medicines management issues faced by the older person in the community. This skill mix is a great learning opportunity for us and we meet monthly to discuss complex case histories and swap experiences.

### Working together

Medicines management issues may arise when a patient moves between primary and

## Panel 2: Case history

Mrs AB is a 78-year-old woman who lives alone and has a long history of epilepsy. She is visited twice daily by carers, who would call 999 if they found she had had a fit, so she was frequently admitted to hospital. Review of her medication led to altering the frequency and timings of her sodium valproate and pregabalin tablets to coincide with carer visits. The medication prompting from a blister pack by her carers then improved her compliance with the epilepsy medication. Mrs AB was then managed at home by a community matron (CM) with an active care plan. After a few months she was admitted to hospital with a chest infection and was discharged home on a reduced dose of sodium valproate. The change in tablets was spotted by her carer, who contacted the CM with their concerns. Further investigation by a domiciliary pharmacist confirmed the dose reduction to be a clerking error made on admission to hospital. The sodium valproate was then increased by the GP to the correct dose to manage the epilepsy. Mrs AB is now managed at home with an individual clinical management plan set up by the community matron. Since then, she has had three fits but remained at home on two occasions, requiring only one hospital admission in the past 12 months.

secondary care — particularly when they are discharged from hospital back home.<sup>5</sup> With this in mind an important aspect of the domiciliary pharmacist role is to manage the transition for the patient at this interface. By working together with the local NHS trust pharmacy department and medicines management team, we have improved communication and set up systems of collaboration.

**On admission to acute hospital** Hospital pharmacy staff are able to call the single point of contact and report if a patient has been admitted who has regular supplies in a monitored dosage system from the community. This information is then cascaded to the relevant community pharmacist, who will stop dispensing medicines (and delivering them to an empty home) until further notice. This simple reporting system reduces waste of medicines and time. The medicines management teams at the hospital then attach an “orange sticker” to the inpatient’s medicines chart, shown in Figure 1 (p137). This simple sticker was designed by the hospital pharmacy to flag the patient’s medicines management requirements to other healthcare staff on the ward and prompt the pharmacy team to notify domiciliary pharmacists of an imminent discharge home.

**On discharge from acute hospital** The trust pharmacy department supplies patients who require monitored dosage systems with a week's supply of medicines and refers the patient to the domiciliary pharmacist via the single point of contact. The domiciliary pharmacist is then informed of the imminent discharge, which allows them to make arrangements to support the patient on their return home. The domiciliary pharmacist can then further educate the patient or carer regarding any changes made to the patient's medicines while in hospital and pass on the discharge information to the local community pharmacist and GP in a timely manner.

**Community hospital direct referral** Following discussions on how to manage an older person who has had a long-term hospital stay and who is being rehabilitated back into the community, the medicines management pharmacist and technician at the local community hospital will contact the domiciliary pharmacists directly to advise them of a complex discharge that needs further medicines management input. This direct referral enables detailed case discussion and speeds up the lag time between discharge and first visit by the domiciliary pharmacist.

**Lunchtime clinical meetings** The domiciliary pharmacists have also presented at the hospital pharmacist lunchtime clinical meetings to discuss their developing role and to demonstrate how they can work together to facilitate the smooth discharge of patients into the community. During these meetings community case studies are discussed highlighting the different issues that the patient faces when managing their medicines in the community.

### — Making a difference

The domiciliary pharmacist gives essential support to the complex care team, ensuring medicines are appropriately managed in patients with long term conditions. A community matron explained: "One of the many benefits is access to pharmaceutical advice in the context of multiple conditions and polypharmacy."

A pharmacist gives a complete medicines focus to this novel primary care service, ensuring a medication review and appropriate individual monitoring is carried out for patients with complex needs.

The domiciliary pharmacist can prevent inappropriate use of monitored dosage systems in primary care and suggest more appropriate methods of medicines management for the individual. Another community matron commented that domiciliary pharmacists "help rationalise patient's medicines and give support in choosing the correct compliance aid for a patient".

The role also facilitates the move from secondary to primary care for patients and



Figure 1: the "orange sticker" that is attached to inpatient's drug charts

helps to meet targets set by the National Service Framework for Older People. We aim to keep patients at home by solving their medicines problems and by educating both the patients and carers on best use of their medicines.

### — Job satisfaction

Working as domiciliary visitors has certainly opened our eyes to the difficulty faced by some people in managing their medicines at home. The direct patient contact and feeling of making a difference is one rewarding aspect of this job.

We have a caseload of long-term condition patients whom we see regularly and build up relationships with them and their carers, monitoring their progress. Each case is unique, so finding ways of managing medicines, immediate problem solving and patient education varies from day to day.

We also have the satisfaction of building a new service, developing our role within the multidisciplinary team and finding our skills being well received and appreciated by healthcare professionals and patients alike. Being able to improve medicine understanding, use, concordance and access for a housebound patient isolated from their local pharmacy is an excellent way to use our skills and meets the recommendation of the National Service Framework for Older People by moving healthcare closer to the individual.<sup>3</sup>

### — Service evaluation

The domiciliary pharmacist service started in Exeter in August 2006. It is a developing service and we are constantly learning from our patient encounters. The domiciliary pharmacists have visited 658 patients, totalling 1,005 patient visit episodes in 17 months, visiting each patient an average of 1.5 times. The pharmacists made 551 interventions where compliance was improved with these patients. During the medication reviews carried out, there were 218 interventions where unnecessary medication was stopped and 149 interventions where the pharmacists initiated a new medicine after discussion with the GPs.

One other area which has involved problem solving is when patients are discharged from secondary care, and 106 of these patients (16 per cent) had their medicines reviewed in the primary care setting by the

domiciliary pharmacists. A total of 36 patients had their medication clinically monitored in the community setting, which included requesting blood monitoring and undertaking therapeutic drug monitoring.

The prescribing cost savings projected during the 17 months was £29,957 and the reduction in medicine waste projected during the same period was £7,566. There were also 837 medicines synchronised for patients to make their supply and ordering more seamless. The predicted increase in prescribing cost due to the domiciliary pharmacists recommending initiation of medicines was £13,251. In terms of predicted cost savings from avoiding unnecessary hospital admissions, the evaluation of the domiciliary pharmacist role demonstrated that the service was paying for itself.

### — Service developments

The complex care teams in Exeter are working well, with integration of healthcare and social services being one of the major successes. The service is being audited and reviewed further and there will be opportunities for domiciliary pharmacists to develop and expand their role in the future. Supplementary or independent prescribing can be introduced to develop the service, particularly for patients who have long-term conditions and who are case managed by the complex care team.

We are also developing a role for a medicines management pharmacy assistant to support the domiciliary pharmacists in managing the long-term conditions caseload, facilitate the transition from primary to secondary care, audit use of monitored dosage systems and work with care homes. This new pharmacy assistant role will be piloted in Exeter and audited over the next 12 months.

Devon PCT and Devon County Council are now extending and developing this model of integrated care across Devon, with domiciliary pharmacists being an important member of the future complex care teams.

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