

# Improving medicines management for older patients on the move

By Tracy Anne Sedgwick, RegTech

Providing seamless care to older patients accessing various health and social care facilities is particularly important. This article sets out the work of pharmacy technicians in Darlington who do just that, ensuring that medicines-related problems are kept to a minimum



Tracy Anne Sedgwick, standing with her prize-winning poster at the American Society of Health-System Pharmacists meeting in December 2005

**O**lder patients tend to take more medicines than younger patients. They also often have more points of access to medical and social care, for example, spending time at residential homes and hospitals, as well as in their own homes. This means that an integrated approach to medicines management is particularly important. The benefits of providing such care should include:

- Promoting faster recovery from illness
- Reducing unnecessary acute hospital admissions
- Supporting timely discharge
- Maximising independent living

In the Darlington area, consideration was therefore given to establishing a multidisciplinary team to provide integrated services to older patients (mainly those over 70 years old) who spend time at a residential home with 20 beds, which specialises in providing care for those who need temporary, rather than permanent, care (termed an intermediate care [IC] facility). Before the final

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decision to go ahead was made, a pilot study was carried out. From this, it could be decided how best to structure the team and their work. An assessment of some of the likely benefits of the new way of working could also be made.

## Pilot study

During the pilot study, which took place in early 2004, pharmacy staff at Darlington Primary Care Trust and at Darlington Memorial Hospital carried out twice-weekly reviews of prescribed medicines by, for example, comparing the medicines administration records (MAR) at the IC facility with the corresponding discharge prescription. The reviews identified various errors and resulted in several interventions being made. Systems were also set up, with the aims of improving communication between staff at the IC facility and community pharmacies, improving the accuracy of the MAR and promoting the self-administration of medicines, where possible. Details of how these currently operate are described later.

The pilot study showed that a constant input was required to improve medicines safety. Funding was made available for a full-time senior pharmacy technician post (joint between Darlington PCT and the acute trust) to be created. My general role would be to co-ordinate the day-to-day medicines-related aspects of care for older patients accessing the IC facility. Standard operating procedures were put in place, which

included details of the circumstances in which advice from pharmacists should be sought.

Another part of my job was to carry out a full-scale study of the medicines-related incidences and errors occurring where patients were transferred to the IC facility. Further details about this are set out below.

## Full-scale study

For a five-month period starting in November 2004, I recorded the number of patients admitted to the IC facility, together with details of where they had been admitted from. I then assessed patients for their suitability to take part in the self-medication scheme, using an assessment tool prepared by pharmacy staff at the acute trust. I recorded the results of the outcome of each assessment.

I also documented all the medication errors I noted and the interventions I made. The potential seriousness of the outcome of incidents, had my interventions not been made, was reviewed by managers at the primary care trust and acute trust, as part of clinical governance procedures. Additionally, feedback sessions with managers were used to review cases, ensure quality control and provide support. Outcomes of the advice I gave (ie, whether it was acted upon) were recorded. The study results are set out below:

**Number of referrals** A total of 49 patients were admitted to the IC facility during the

study period. Seven of these were admitted from surgical wards, four from the accident and emergency department, 10 from medical wards, nine from elderly care wards, 12 from their homes and seven from the hospital, (but who had been transferred between wards).

**Incidents and interventions** A total of 63 interventions, associated with preventing incidents of varying degrees of risk were recorded during the study period. Of these, 11 were clinical, five related to self medication and patient education issues, 25 involved prescribing errors and 16 involved

incorrect medication histories. Further details of some of the interventions made are set out in Panel 1. For all of the interventions, the advice I gave was accepted and acted upon by the relevant health care professional. All of my interventions were considered appropriate when reviewed by managers.

## Panel 1: Some incidents noted and some interventions made

### Incident

### Action and outcome

#### Clinical or self-medication incidents

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| <ul style="list-style-type: none"> <li>■ Patient arrived from hospital on sip feeds and calogen but there was no information from the dietician about whether these items should be continued</li> <li>■ Patient who had been receiving perindopril for one month was prescribed codeine linctus for a dry cough</li> <li>■ Patient had osteoarthritis and was in pain. He was prescribed paracetamol and tramadol but was not being given paracetamol</li> <li>■ Patient arrived on newly-prescribed spironolactone with request from hospital pharmacist that potassium levels be monitored</li> <li>■ Patient arrived who had had problems taking medicines because he "got muddled"</li> </ul> | <ul style="list-style-type: none"> <li>■ Dietician contacted and explained how to reduce sip feeds over time</li> <li>■ Requested angiotensin converting enzyme inhibitor to be reviewed. Prescriber stopped perindopril, and started losartan when the patient's blood pressure was not suitably controlled by atenolol alone</li> <li>■ Advised carers to give regular paracetamol and to "add in" tramadol as needed. Patient's pain control improved</li> <li>■ Arranged for potassium levels to be monitored</li> <li>■ Arranged with GP and community pharmacy for a medidose compliance aid to be used. Patient is now self-administering his medicines successfully</li> </ul> |
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#### Prescribing, transcription or history-taking errors

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| <ul style="list-style-type: none"> <li>■ Patient arrived using fentanyl patches every three days. Carers had annotated the medicines administration record (MAR) so patient was to receive patch on his third day at the IC facility, but this would be four days after his previous patch was applied</li> <li>■ IC facility staff contacted me to arrange a continuing supply of metronidazole</li> <li>■ Patient admitted on paracetamol and codeine to be taken six hourly. Carers at the IC facility had written the drugs on the MAR as twice daily, since this coincided with their drug rounds. Patient was in pain</li> <li>■ Patient admitted from acute trust with error in his discharge prescription</li> <li>■ Patient previously prescribed furosemide 40mg twice daily, but this instruction had been changed by his general practitioner to once daily. The care staff did not amend the MAR accordingly, and the patient continued to receive furosemide twice-daily</li> <li>■ Patient, who was already taking lansoprazole, was prescribed omeprazole by his GP</li> <li>■ Carried out medication history for patient on ward where pharmacists did not do so. Discovered that the patient had been taking an item at home not prescribed at hospital</li> <li>■ Patient discharged from hospital with stock boxes of drugs with unclear instructions and no discharge prescription</li> <li>■ Patient was admitted from home with a "nomad" system. Unable to obtain a full medication history from the "nomad"</li> <li>■ Patient admitted from hospital with his discharge medicines, but also had some medicines of his own which had been discontinued during their hospital stay but had been added on the MAR</li> </ul> | <ul style="list-style-type: none"> <li>■ Amended the MAR accordingly</li> <li>■ Explained that metronidazole was an antibiotic and not to be re-issued. I now annotate "antibiotic course" on the MAR as appropriate</li> <li>■ Amended the entry on the MAR to four-times daily and discussed the situation with all care staff so that it did not occur again for other patients</li> <li>■ Completed an incident report form; the patient and his GP were informed of the error</li> <li>■ Amended the MAR and the patient then received furosemide as prescribed</li> <li>■ Contacted the patient's GP, who was unaware of the lansoprazole prescription; GP stopped the lansoprazole and continued with omeprazole; the patient's community pharmacist was informed</li> <li>■ Contacted hospital doctor, who prescribed the missing item</li> <li>■ Completed incident report form; arranged for discharge prescription to be written and delivered it to the IC facility</li> <li>■ Contacted GP and community pharmacist for complete medication history; amended MAR and informed pharmacy staff that patient at the IC facility</li> <li>■ Double-checked medicines against the trust's discharge prescription and crossed off the items on the MAR that are no longer prescribed</li> </ul> |
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All patients are described as "he"

**Self-administration of medicines** During the study period, 40 patients were assessed for suitability for self medication. Of those assessed, 15 were deemed suitable for inclusion and went on to self-medicate successfully during their stay, three were considered suitable but were unwilling to self-medicate, and 22 were considered unsuitable (for example, because they were confused, were perceived to be at high risk of an accidental overdose or had external carers who managed their medicines for them). It should be noted that, before I took on my role, no patients self-administered their medicines at this IC home.

Aspects of my role, other than carrying out the project, are set out below.

### — Improving communication

Improving medicines-related communication between those involved in a patient's care in different places is one of the most important aspects of my job. Once an initial assessment has been carried out and a patient is deemed suitable to attend the IC facility, I am contacted. If a patient is on a ward where pharmacists do not routinely take medication histories, I do so, while the patient is still in hospital. This involves liaising with the patient and medical and nursing staff, for example, to ensure that the patient's discharge prescription is accurate and legible.

When the patient enters the IC facility, I liaise with staff at local community pharmacies and GP surgeries, ensuring that they receive a copy of the discharge prescription that outlines changes to medicines made and any monitoring required. If patients are admitted to the IC facility from their own homes a similar procedure is followed.

On admission to the IC facility, a patient's MAR is written by one of the senior carers. I intervene at this stage to ensure accuracy and legibility and make annotations regarding any special requirements. Staff at local community pharmacies are kept up to date with patients' potential discharge dates from the IC facility. Patients' general practitioners are also contacted and provided with relevant medicines information and any monitoring requirements.

Patients are therefore "followed" from one care setting to another and all parties are updated with any changes to medicines. This reduces the potential for errors and helps ensure that a continuous supply of medicines is achieved, resulting in fewer missed doses. It also means that drugs that have been stopped for good reason at one setting are less likely to be re-prescribed at another.

### — Promoting independence

Self-administration of medicines supports independence, gives patients more control over their treatment, improves compliance

and can enable medicines to be used more effectively. All of these are particularly important to the care of patients at the IC facility, since it is expected that they will return to their homes.

As patients progress through their time in the IC facility, I have several discussions with them to assess their understanding of their medicines and to identify any barriers to self administration, which are set out in Panel 2.

Patients who are willing and able to self-medicate are issued with medicine reminder charts. Their medicines are kept in a lockable bedside drawer and they take them as they would at home.

### — Training and advising

The training and advising of patients, their family carers and care staff in the use, handling and storage of medicines is another aspect of the pharmacy technicians' role. In particular, I am able to tailor education to suit the needs of individual patients and involve other members of the multidisciplinary team, as appropriate. Patients and their family members are advised of my availability and meetings can be arranged with family members if they have any questions or concerns. The care staff have a "query book", which I review on a regular basis and then feedback any relevant information.

Some of the education I give results from issues we encounter. For example, on one occasion I noticed a missing entry following the destruction of a Controlled Drug. Resolving the discrepancy was a particularly time-consuming process. The incident highlighted that members of staff at the IC facility were inconsistent in their CD record-keeping and that the procedures in place meant that there were no audit trails to follow. The recommendations I made as a result led to changes in policies and procedures and the importance and relevance of these modifications were stressed to all staff involved. My role in CD management is ongoing and will be subject to review, to reflect changes in the relevant legislation.

#### Panel 2: Potential barriers to the self-administration of medicines

- Reduced dexterity, in which case easy-opening containers are recommended
- Poor eyesight, in which case large print labels are recommended
- Swallowing difficulties, in which case the use of liquids or dispersible tablets is recommended
- Poor techniques, for example, when using inhalers, in which case the patient is educated appropriately

#### "Focus on technician" articles

This series exists to report on how pharmacy technicians are pushing forward their traditional boundaries and making a full contribution to the profession. Any pharmacist or technician who is involved in any new developments in work undertaken by technicians is asked to consider writing an article for publication. Articles can be submitted by email to [hannah.pike@pharmj.org.uk](mailto:hannah.pike@pharmj.org.uk) or [rachel.graham@pharmj.org.uk](mailto:rachel.graham@pharmj.org.uk)

### — Future

One potential way to improve the service I offer is to visit patients in their own homes or usual care setting, after discharge from the IC facility. This could potentially highlight problems unforeseen while in a care facility. Such a service is now under way, and I have made four home visits to date.

My role could also be linked in with the single assessment process, which was introduced in the National Service Framework for older people. At Darlington, the procedure for this is currently being developed by staff at social services and the acute trust, and discussions are under way to involve pharmacy staff.

With the help of staff at the PCT, I am also in the process of developing a patient questionnaire and interview format.

### — Conclusion

Introducing the post of senior pharmacy technician for IC and medicines management has led to improved communication about medicines between staff at the acute trust, the IC facility, community pharmacists and GP surgeries. Ensuring an accurate medication history and communicating with all members of the multidisciplinary team has reduced supply problems and has improved prescribing accuracy within the IC facility.

My work has shown that pharmacy technicians are able to enhance the pharmaceutical care of patients in an IC setting. I believe that this is a model that could be reproduced nationally.

**ACKNOWLEDGMENTS** Thanks go to the following: Sally Bell, head of pharmacy and prescribing, Linda Neely, deputy head of pharmacy and prescribing, Chris Williams, prescribing adviser, Fiona Anderson, public performance involvement officer, all at Darlington Primary Care Trust. Margaret Ledger-Scott, chief pharmacist, Christine Oates, lead clinical pharmacist and Kath Barker, lead technician for medicines management, all at county Durham and Darlington Acute Hospitals NHS Trust. Fred Marrin, manager of the intermediate care facility.