Diabetes care – an enhanced role for community pharmacists?

A recent leading article highlighted the 5000 waking hours in any one year that people with diabetes spend making decisions related to their overall health (Asch et al, 2012). This compares with the 1–2 hours these individuals may spend face-to-face with members of the traditional primary healthcare team. Whilst this article went on to suggest that people need better surveillance of their habits, perhaps electronically, others argue that this reinforces the case for empowering people to manage their own diabetes by making choices, taking control and accepting consequences (Funnell and Anderson, 2004).

Underpinning this need for scrutiny is the acceptance that many people with diabetes fail to take their medications regularly, and increase their risk of many of the complications associated with diabetes, as well as potentially expensive hospital admissions (Donnan et al, 2002). The UK Government is committed to expanding the role of community pharmacists (Department of Health, 2004). Could community pharmacists play a larger part in this supervision and improve self-management? In this edition of the Journal we examine the role for community pharmacists in helping the person with diabetes in general, as well as ensuring adherence to the increasingly complex therapeutic regimens needed in diabetes care.

The community pharmacist

Members of the primary healthcare teams already work closely with community pharmacists. Pharmacists are experts in the use of medicines, and must complete a 4-year degree and 1 year's practical training to qualify. Better use could be made of pharmacists' skills and knowledge, and the new pharmacy contractual framework sets out the Government's plans on how to achieve this (Gilani, 2012; pages 200–1 of this issue).

Of course, community pharmacists operate within a commercial environment, so questions have been raised about whether they are best placed to decide correct drug treatments. However, one of the key responsibilities within a pharmacist's code of ethics is to act at all times in the best interests of the patient (Royal Pharmaceutical Society, 2004). Pharmacists are also expected to assess whether a prescription or an over-the-counter medicine is appropriate.

Many pharmacies are located close to, or within, surgeries and whilst pharmacists have a wider commercial role, there is an increasing recognition that they have a duty to their customers to provide a service which involves ensuring compliance with complex regimens (Sharma and Taylor, 2012). Recent research also highlights the interaction between pharmacists and family members, who often play a key role in the dynamic (research commissioned by Boots UK and conducted by Opinion Health, on 250 UK family members of people with type 2 diabetes between 04.05.12 and 14.05.12).

Adherence to diabetes regimens

People with diabetes, particularly type 2 diabetes, are often faced with a high pill burden and may be reluctant, or simply unable, to adhere to regimens. Frequently, however, this prescribing aligns with guideline recommendations, and the benefit for the patients is evidence based. A recent analysis from the US suggested that a 13% reduction in adherence could lead to a significant increase in hospital admissions, with the attendant costs (Jha et al, 2012). NICE guidance outlines many of the issues that are apparent when encouraging patients to adhere to therapeutic regimens, suggesting that all patients should have the opportunity to be involved in decisions about their medicine (NICE, 2009). The guidance suggests that all primary healthcare personnel should seek to reinforce adherence at every encounter (James, 2012; page 202 of this issue).

Colin Kenny

Colin Kenny is a GP in Dromore, County Down, Northern Ireland.

"The function of community pharmacists in diabetes care is evolving"

Many healthcare professionals are increasingly turning to "dosette" boxes, or individualised containers, containing medications organised into compartments by day and time, to simplify the taking of medications and to enhance adherence (Mahtani et al, 2011). Although there is limited evidence for their overall effectiveness with simple regimens, they appear to have the greatest impact when medication regimens are intricate but stable, with one study showing a significant HbA_{1c} reduction when medicines were placed in blister packs (Simmons et al, 2000). They can increase compliance amongst older patients with complex regimens (Winland-Brown and Valiante, 2000). These boxes are time-consuming for community pharmacist to fill, and regimens must be agreed in advance and clearly set out by the prescriber. A practical point is that once regimens are established in such blister packs, changes in prescriptions may have to wait until the next time the calendar pack is refilled.

A specific role for community pharmacists

What is the evidence for the role of pharmacists in diabetes? An Australian study showed that a pharmacist could both reduce HbA_{1c} and prove cost-effective (Taylor et al, 2005). The pharmacists were trained to do an initial assessment visit in the pharmacy, with six follow-up visits where medication was reviewed, and goal-setting with blood glucose monitoring took place. A recent study conducted with community pharmacists in Hertfordshire has demonstrated that education and counselling by community pharmacists can result in favourable improvements to the cardiovascular risk profile of people with type 2 diabetes (Ali et al 2012). A study conducted in the US has shown that the pharmacists could lead the community diabetes team (Warrington et al, 2012). However, attempts to look systematically at the quality of pharmacist care in diabetes have been hampered by the heterogeneity of studies. An important review was conducted examining the effect of pharmacist intervention on glycaemic control in diabetes (Collins et al, 2011). This study found that often interventions were time-intensive with limited clinical significance. It suggested further high-quality studies of community pharmacist interventions for preventing or managing diabetes or cardiovascular disease and/or their major risk factors. Clearly there is a considerable variation in the knowledge and skill of individual pharmacists.

A future role

The function of community pharmacists in diabetes care is evolving. They have an important task in supplying diabetes pharmaceuticals, testing strips and glucose monitors. The UK Government would like to see the role of pharmacists expanded to make better use of their knowledge and skills, as well as exploiting their location in the community. Their commercial role means that they have a frequent and direct relationship with the patient, their families and carers. They can supervise the placement of medicines into pill dispensers, to improve adherence, and add an important additional facet to the overall surveillance of people with diabetes. ■

Ali M et al (2012) Impact of community pharmacy diabetes monitoring and education programme on diabetes management: a randomised controlled study. *Diabet Med* **29**: e326–e33

Asch D et al (2012) Automated hovering in health care–watching over the 5000 hours. *N Engl J Med* **367**: 1-3

Collins C et al (2011) Effect of pharmacist intervention on glycemic control in diabetes. *Diabetes Res Clin Pract* **92**: 145–52

Department of Health (2004) *The new contractual framework for community pharmacy.* DH, London. Available at: http://bit.ly/OnipAo (accessed 28.08.12)

Donnan P et al (2002) Adherence to prescribed oral hypoglycaemic medication in a population of patients with Type 2 diabetes: a retrospective cohort study. *Diabet Med* **19**: 279–84

Funnell M, Anderson R (2004) Empowerment and self-management of diabetes. *Clinical Diabetes* **22**: 123–7

Gilani A (2012) The changing face of pharmacy. *Diabetes & Primary Care* **14**: 200–1

James S (2012) Supporting patients with medication adherence. *Diabetes & Primary Care* **14**: 202

Jha A et al (2012) Greater adherence to diabetes drugs is linked to less hospital use and could save nearly $5 billion annually. *Health Affairs* **31**: 1836–46

Mahtani K et al (2011) *Reminder packaging for improving adherence to self-administered long-term medications.* Cochrane Database of Systematic Reviews 2011, Issue 9. Art. No: CD005025. DOI: 10.1002/14651858.CD005025.pub3

NICE (2009) *Medicines adherence.* CG76. NICE, London. Available at: http://bit.ly/RpvvvC (accessed 28.08.2012)

Royal Pharmaceutical Society (2004) *Code of ethics and standards*. RPS, London

Sharma K, Taylor T (2012) Pharmacy effect on adherence to antidiabetic medications. *Med Care* **50**: 685–91

Simmons D et al (2000) Can medication packaging improve glycaemic control and blood pressure in type 2 diabetes? *Diabetes Care* **23**: 153–6

Taylor S et al (2005) A cost-effectiveness analysis of a community pharmacist-initiated disease state management service for type 2 diabetes mellitus. *International Journal of Pharmacy Practice* **13**: 33–40

Warrington L et al (2012) Implementation of a pharmacist-led, multidisciplinary diabetes management team. *Am J Health Syst Pharm* **69**: 1240–5

Winland-Brown J, Valiante J (2000) Effectiveness of different medication management approaches on elders' medication adherence *Outcomes Manag Nurse Pract* **4**: 172–6