

## DIABETES

# (1) PHARMACISTS AS PART OF AN EXTENDED DIABETES TEAM

By Noel Dixon, DipClinPharm, MRPharmS

*In order to counter the predicted diabetes epidemic and limit costs to the health service, the Government published the first part of its National Service Framework for Diabetes last year, with the second part due this summer. This article looks at ways in which community pharmacists can contribute*

It has been estimated that diabetes accounts for 9 per cent of the NHS annual budget. In 2000 this amounted to £5.2bn, but factors such as additional social costs and loss of working days also need to be considered. Drug costs account for a small part of this bill, but by optimising pharmaceutical care for individuals and by becoming part of an extended diabetes team, it should be possible to improve health and reduce the financial burden to society.

It is thought that diabetes affects 2.5–3 per cent of the population, of which about 90 per cent will have type 2 diabetes. It is also thought that there are a further one million people with undiagnosed diabetes and the delay in diagnosis (estimated at between nine and 12 years) means that as many as a half of all people with diabetes have evidence of organ or tissue damage. In a general practice close to my pharmacy, where the population is elderly and almost exclusively Caucasian, five per cent of patients have diabetes. In some communities, especially Afro-Caribbean or Asian communities, incidence is much higher.

Diabetes is a complex condition and people with diabetes need support from a variety of health care professionals such as the clinician supervising treatment, diabetes specialist nurse, GP, dietitian, podiatrist, community pharmacist, consultant and ophthalmologist. Patients will need to see these professionals fairly regularly and it can be time consuming fitting all this in. One patient commented that she “hadn’t had a hobby till she got diabetes”. It is important to ensure that the current system of care works, eg, checking that the patient has kept appointments.

Where do we start? How can we help without making life more difficult for the patient? We are already involved, seeing patients up to five times more often than any of the other health care professionals. I believe we start from our traditional role and perhaps then we can evolve to incorporate new developments. Further information can be gained from reading the Royal Pharmaceutical Society’s practice guidance on the care of people with diabetes.<sup>1</sup> Our traditional role can be broken down into response to symptoms, dispensing, supply of equipment for self measurement of blood glucose (SMBG) and patient education.

## RESPONDING TO SYMPTOMS IN GENERAL

Because we see people who are apparently “healthy” as well as those who are clearly unwell, we are in a position to catch some of the million undiagnosed people with diabetes. Type 2 diabetes remains the most frequently detected serious disease in my pharmacy. The possibility of diabetes is identified in response to a casual request to treat trivial symptoms, and I probably see one or two people a month who need further investigation. It is important that we refer anyone with the classic signs or symptoms, eg, polydipsia, polyuria (especially nocturia), lethargy, weight loss, recurrent urinary tract, soft tissue or fungal infections, slow healing wounds, blurred vision, or neuropathy (indicated by numbness or pins and needles); especially in the presence of any risk factors, eg, family history, obesity, aged over 40 years, Asian or Afro-Caribbean descent, gestational diabetes and multiparous women having given birth to a baby over 4.5kg.

Type 1 diabetes usually affects people at a younger age (though it is not unknown to acquire it later in life). The signs are the same as for type 2 diabetes, but the onset is much more sudden and severe. In 28 years of practice I have only seen one man with undiagnosed type 1 diabetes; he was referred, and was in hospital within the hour.

## RESPONDING TO SYMPTOMS IN PEOPLE WITH DIABETES

Over-the-counter treatment of any symptom that could be a sign of hyperglycaemia (eg, thrush) should be accompanied by an enquiry as to the level of current diabetes control, and appropriate advice should be given or a referral made. In any illness, people with diabetes should comply with the “sick day rules”. Your local diabetes service will have their own version of these, but the most important points are to:

- λ Continue using insulin and/or taking any diabetes medicines
- λ Increase the frequency of SMBG to at least three or four times daily because illness can elevate blood glucose levels
- λ Continue eating and drinking—this is especially important in vomiting and diarrhoea
- λ Test for ketones in type 1 diabetes and in type 2 diabetes if illness is serious or prolonged—this will show if the body has started breaking down fat for energy and indicates risk of ketoacidosis
- λ Seek help if the illness is severe or prolonged, blood glucose levels are greatly elevated or if ketones are present

People with diabetes account for half of all lower limb amputations so it is vital to check that anyone requesting chiropody products is seeing a podiatrist regularly. Anyone with diabetes who has a limp or is requesting any product to relieve pressure on a painful foot needs to see a podiatrist. Products for topical application containing salicylic acid should not be used in people with diabetes because if a person has neuropathy, they can cause ulceration without the person realising. It is important to note that ulcers occurring as a result of pressure from a callus can form underneath the callus and the condition is often only revealed when the callus has been reduced by an expert. People with diabetes should be encouraged to take good care of their feet. They should check their feet daily and avoid going barefoot. Foot care leaflets are available from organisations such as Diabetes UK and there is even a marketing opportunity with a display of surgical spirit, moisturising creams and nail scissors.

## DISPENSING

The pharmacy is often the first port of call for people with newly diagnosed diabetes. They will often be in a state of shock perhaps having been given a prescription for SMBG products and an appointment to see the specialist nurse in a fortnight. In a situation like this, you can establish yourself as a source of information. The pharmacist can address any of the patient’s immediate concerns, make sure they have some basic written information and invite the patient to make further contact if they have any queries. Appendix 4 of the Society’s practice guidelines contains an example of a diabetes care leaflet. Patients should be encouraged to join Diabetes UK, which has a wealth of educational material and publishes “Balance” a monthly magazine with practical guidance and useful articles.

*Mr Dixon is a practising community pharmacist with a special interest in diabetes*

Full details of the pharmacist's role in dispensing for people with diabetes are given in the Society's practice guidelines but a few points are worth emphasising. When patients are started on a sulphonylurea it is worth making sure that they know these drugs can cause hypoglycaemia and how to recognise the signs, eg, fatigue, irritability, confusion, pallor, rapid pulse, blurred vision and anxiety. Again, written information should be provided. Patients should be encouraged to eat at regular times and warned that delaying or missing meals could lead to a hypoglycaemic attack.

The dispensing of SMBG products should be accompanied by advice on use and a check that the right lancets have been prescribed for the finger pricking device to be used. MIMS has a good reference table showing which lancets are compatible with different devices. Patients should be given guidance as to how to dispose of used lancets. Some primary care organisations may have a protocol so it is worth checking with your local diabetes service. A one litre sharps bin is listed in the Drug Tariff, but patients should be advised that once filled, it should not be disposed of with household waste and they need to contact the local authority for separate collection as clinical waste. If there are no local facilities for sharps disposal, you can recommend the BD Safeclip which will store approximately 1,200 needles.

Patients who start using insulin are usually given support from specialist diabetes nurses and will be trained in the use of insulin and injection technique, but it is still worth asking if there is anything they do not understand. You can then provide the information or refer them back to the nurse.

Dispensing of other medicines for concurrent illness should be checked for possible interactions. In particular, care is needed with certain analgesics, antifungals and antibacterials. Starting oral contraceptives or hormone replacement therapy also needs care. Patients should be encouraged to monitor their blood more frequently when starting new drugs and reminded of the "sick day rules".

#### SUPPLY OF BLOOD GLUCOSE METERS

Blood glucose meters are not commodities and should not be treated in a normal commercial manner. Bear in mind that some GPs prefer not to prescribe for blood glucose testing if a patient is well controlled with urine testing. Patients need advice and meters that are recommended should be selected from a list of preferred machines supplied by your local diabetes team. From this list, consider which machine would be most suitable for patients with poor vision or poor manual dexterity. Patients should be taught how to use the meter and shown how to produce a drop of blood. A useful exercise is to take a meter home (your local diabetes nurse or drug company representative may be able to provide you with one) and set yourself the task of measuring your own blood glucose four times a day for a week.

There is a need to provide an ongoing support service once people have purchased their meter. The local pathology laboratory is a useful contact. It can supply quality control solutions to enable the accuracy of blood glucose meters to be checked. The most common problem seen with returned meters is poor performance due to poor attention to cleaning. It is also worth checking that the testing strips are not out of date or faulty and that patient technique is correct. Even if people have been self-monitoring for some time, it is possible for them to make procedural mistakes. It is not uncommon for patients who put the testing strip into the meter at the wrong time or introduce a drop of blood too soon to bring the meter back because it has "stopped working".

#### EDUCATION

Self education is essential because the management of diabetes has become more complex and is changing rapidly. You may, for example, be asked about blood glucose monitors that do not require the use of needles. It takes considerable commitment to keep up to date.

Prevention of, or delay in, the onset of diabetes can be achieved through the adoption of a healthy lifestyle and pharmacists need to reinforce this message as part of their health promotion role. However, in practice, this rarely happens unless our advice is sought. We could get together with local food retailers to promote the "five por-

tions of fruit and vegetables a day" healthy eating message, but initiatives such as this are difficult for individual pharmacies to organise. We need structured information and someone to co-ordinate events based around special days or weeks. For people we have identified as being at risk of diabetes as a result of our response to symptoms, we have an opportunity to promote a healthy lifestyle and talk about being vigilant of warning signs.

The national service framework advocates self management of diabetes and lifestyle, and pharmacists are in a position to help patients learn about their diabetes. For example, although exercise is beneficial, care must be taken in people who are using insulin or taking sulphonylureas if they want to exercise more. Any change in the level of activity should be gradual and be accompanied by more frequent SMBG. Patients using insulin are usually advised to reduce their insulin dose, eat a little bit more and be vigilant for "hypos" before enjoying a period of exercise. People taking sulphonylureas do not have this flexibility and a change in intensity of activity should be gradual. The onset of a "hypo" can be fairly sudden or considerably delayed. I have one older patient who tends to burst into tears in the middle of a round of golf and he has warned his partners to watch out for this and other signs during a game. I have spoken to a younger man with diabetes who is a distance runner and finds he needs to be alert to the risk of "hypos" for more than 24 hours after a period of prolonged exercise.

We could be more proactive in our role as educators. Appendix 5 of the Society's practice guidance has a specimen questionnaire to give out to people with diabetes, perhaps when taking in a prescription. This is a useful starting point because it engages the patient's interest by finding out about their concerns. I learn a lot from listening to people who have diabetes and asking about the current results of SMBG often provokes an interesting discussion.

Pharmacists are commonly asked for advice on topics like managing diabetes while on holiday. We need to be able to provide specific equipment such as cool bags for insulin and identification for emergencies (eg, Medic Aid), or at least be able to direct the patient to a reputable supplier. The Society has also written audits for assessing the counselling of people with diabetes and for assessing the quality of leaflets about diabetes.

#### DEVELOPING OUR ROLE

Pharmacists are starting to get involved in the running of type 2 diabetes clinics in hospital and it would be a logical step for services to be provided in local settings. However, moves in this direction would need to take account of complex communication issues. Some of us may wish to provide a service for the identification of people with elevated blood glucose. Although it would be an advantage to know who your local diabetes nurse is in any case, in this situation it is essential to speak to other members of your local diabetes team. Of major concern is whether local surgeries have the resources to deal with an influx of new patients with diabetes and in any case, clear referral pathways, including a fast track appointment system, would be needed. Further information can be found in the Society's practice guidance on the early identification of people with diabetes.<sup>2</sup> The advent of local pharmaceutical services may provide opportunities for funding, or you could try getting such a service commissioned on a short-term basis by speaking to your primary care organisation.

Finally, the projected numbers of people with diabetes make it likely that in the future only the most dependent members of society will receive the level of support currently available. In a model of care like this, pharmacies could act as centres for local advice, diagnostic measurement and quality control. Pharmacists can help patients become experts.

#### REFERENCES

1. RPSGB Diabetes Task Force. Practice guidance for community pharmacists on the care of people with diabetes. RPSGB February 2001.
2. RPSGB and Diabetes UK. Practice guidance on early identification of diabetes by community pharmacists. RPSGB September 2001.