

## DIABETES CARE

# Multidisciplinary approaches to diabetes in primary and secondary care

*Diabetes was one of three major themes at the British Pharmaceutical Conference this year. In a session on "Pathologies in focus", on 23 September, participants heard about new developments in diabetes treatment, pharmacists' involvement in diabetes management and an expert patient's perspective of the disease*

Ten years ago there appeared to be little or no pharmacist involvement in diabetes care, said Irene Gummerson, community pharmacist, but things are slowly changing. The Royal Pharmaceutical Society has recently produced practice guidance on the early identification of diabetes, the Centre for Pharmacy Postgraduate Education has reviewed its diabetes distance learning material, the Pharmaceutical Services Negotiating Committee and the National Pharmaceutical Association have produced diabetes resource guides, and there are multidisciplinary diabetes diplomas available. There are also pharmacists on local, regional and national committees of Diabetes UK.

Mrs Gummerson said that community pharmacists contribute to the primary prevention of diabetes through raising public awareness of the signs and symptoms of diabetes, the risk factors and the benefits of a healthy lifestyle. Some community pharmacists are also involved in screening for diabetes through responding to symptoms, testing of blood and urine and using questionnaires to assess a customer's risk of developing diabetes. Assistance in self-monitoring of blood glucose through advice on the use of testing equipment and the calibration of meters is another way in which community pharmacists can help, she added.

Some community pharmacists are involved in sessional work at GP surgeries where they undertake medication reviews from patients' medical notes. "This is only a



*Irene Gummerson: NSF for Diabetes will provide many opportunities for pharmacists*

step away from medicines management where the patient is present," said Mrs Gummerson.

By combining all these areas a number of community pharmacists are fully involved in diabetes disease management. Mrs Gummerson told participants of some examples, including a community pharmacist in Tamworth who offers diabetes screening, medication reviews, microalbuminuria, HbA<sub>1c</sub> and lipid profiles, blood glucose and blood pressure monitoring. Currently patients self-refer and pay for the service.

Another example she gave was of a diabetes management service facilitated by GlaxoSmithKline, in which community pharmacists are involved in screening for

type 2 diabetes as well as identifying patients with poorly controlled diabetes. Pharmacists either have a referral role only or participate in pharmacist-led clinics where they carry out medication reviews, blood pressure monitoring and HbA<sub>1c</sub> measurements following locally approved guidelines. Mrs Gummerson added that pharmacists interested in participating in this scheme should contact Linda Stephens on 0800 221441.

In East Hull, a nurse-led community diabetes clinic includes services from a community pharmacist, a podiatrist and a dietitian. The pharmacist is developing the expertise to deal with all patients with type 2 diabetes, and the nurse looks after patients with type 1 diabetes. A consultant has ultimate responsibility for the clinic.

There are several organisations that offer support to community pharmacists who want to become involved in diabetes care, said Mrs Gummerson. These include:

- 1 Primary care trusts — if pharmacists want funding from PCTs then they need to target the PCT's priorities
- 1 Medicines management collaboratives — these national initiatives bring representatives of local teams together to work on medicines management initiatives
- 1 Medicines Partnership — a Government funded initiative that is looking to support projects across the United Kingdom that will promote concordance

Mrs Gummerson said that the extent of involvement by hospital pharmacists varies from reactive, ie, answering queries, to pharmacist-led diabetes clinics. She gave examples of pharmacist-led clinics at Darlington Memorial Hospital (*P7*, 13 July, p61), North Durham Healthcare NHS Trust, Sunderland Royal Hospital and Harrogate Hospital. She said that pharmacists in these clinics accept referrals from diabetologists and, in some, from nurse specialists and chemical pathologists. Mrs Gummerson explained that the hospitals at Durham, Harrogate and Darlington are interested in rolling out the monitoring service to community pharmacists provided the clinics are successful and they are able to obtain funding from their PCT.

In conclusion, Mrs Gummerson said that the new National Service Framework for Diabetes will provide many opportunities for pharmacists: "If you want to get involved in diabetes services then grasp these opportunities and make it happen."

## An expert patient's perspective

The "Expert patients" report, launched a year ago, sets out how the National Health Service will empower people living with chronic conditions to become key decision-makers in their own care. Nova Mills, a tutor for a user-led training course in self-management of chronic illnesses (*P7*, 9 March, p314) currently being piloted in Salford, told participants at the Conference about her own experiences with diabetes.

Ms Mills explained that people who live with long-term illnesses need to feel more in control. She said that people who are involved in self treatment are no longer passive recipients and that as a result they experience less pain and fatigue, as well as an increase in mobility and independence, and feel less isolated and excluded. The expert

patients programme in Salford takes place in the community, one day a week for six weeks. It has two facilitators and covers areas such as the pain cycle, depression, recognising and acting on symptoms, using medicines correctly and using community resources. "The techniques learnt on the expert patients programme give you the motivation to get up in the morning," said Ms Mills.

Ms Mills also told participants about a self-help scheme that she runs called "Sugar free". The scheme was set up with the intention of helping people with newly identified type 2 diabetes to cope during the first few months after diagnosis. Ms Mills offers advice over the telephone based on her own experiences and can be contacted on 0161 792 7636.

## High degree of predictability for developing diabetes

There is currently a world-wide diabetes epidemic, Professor Adrian Bone, University of Brighton, told Conference participants. He explained that 9 to 10 per cent of the total National Health Service budget in the United Kingdom is spent on diabetes but less than 2 per cent of the population has the disease.

Professor Bone then went on to review new developments in the treatment of diabetes. He told participants about results from the European Nicotinamide Diabetes Intervention trial which tested whether nicotinamide could delay or prevent the onset of type 1 diabetes. The trial involved screening over 30,000 first degree relatives of people with insulin dependent diabetes from 18 countries. Those who were found to be at high risk of developing the disease, due to having islet cell antibodies in their blood, were entered into the study. A total of 552 family members were recruited to the trial and the expected incidence of developing diabetes was estimated to be about 30 per cent. Professor Bone said that unfortunately follow-up over a five-year period had shown that nicotinamide has no effect on the development of diabetes, however, the

positive outcome from the trial was that the degree of predictability for developing the disease was found to be high, with an incidence of 30 per cent. "This is an important advance that will give confidence to researchers seeking to evaluate future potential intervention therapies," said Professor Bone.

Professor Bone also talked about islet transplantation, which he described as a minimally invasive technique compared with pancreas transplantation. Until recently islet transplantation had been largely unsuccessful. However, a study carried out by Ryan *et al*, University of Alberta, Edmonton, Canada (*Diabetes* 2002;51:2148-57), found that more than 80 per cent of those studied were no longer dependent on insulin one year after the procedure. The researchers followed the Edmonton protocol, developed by Dr James Shapiro and colleagues, University of Alberta, which involves transplanting a larger number of islet cells than

previously. Professor Bone pointed out that there are still a number of issues unresolved, including the availability of donor tissue, achieving graft protection, promoting long-term graft survival and preventing impaired response to hypoglycaemia in transplant recipients. Professor Bone suggested that the shortage of donor tissue may be overcome in the future by the use of xenogenic islets, differentiated human pancreatic duct cells or therapeutic cloning of pancreatic stem cells.

Professor Bone also discussed progress made in the treatment of type 2 diabetes, specifically the thiazolidinediones, which have a limited licence in the UK but have a direct effect on beta cells and can prevent or reverse type 2 diabetes by maintaining beta cell mass. The pharmaceutical industry is also developing long-acting analogues of another peptide, glucagon-like peptide 1.



**Professor Bone: the NHS spends 9-10 per cent of its budget on diabetes**