MANAGING TYPE 2 DIABETES WITH EMPHASIS ON PATIENT EDUCATION

Revised NICE guidance argues that providing education to patients is a key aspect of diabetes management. Nerys Hairon finds out more about the recommendations.

NICE published updated guidance on managing type 2 diabetes last week (NICE, 2008). Developed by the National Collaborating Centre for Chronic Conditions, it replaces four existing NICE guidelines on managing blood glucose, blood pressure and blood lipids, renal disease and retinopathy in type 2 diabetes. It also updates recommendations in three technology appraisals and will act as a single reference point on all aspects of care.

The guidance emphasises patient education, as lifestyle changes, complexities of management and therapy side-effects make this a priority. It recommends that those with the condition receive ongoing education from diagnosis, as well as tailored dietary advice. Key priorities for implementation are identified as: structured patient education; dietary advice; recommendations on setting a target HbA1c level; advice on self-monitoring of plasma glucose; and starting insulin therapy.

PATIENT EDUCATION
NICE recommends that practitioners should offer structured education to every person and/or their carer at the time of diagnosis, with annual reinforcement and review. They should inform patients and carers that such education is an integral part of diabetes care. This advice updates NICE’s technology appraisal on patient-education models for diabetes (NICE, 2003), which recommended that structured education be available to all people with diabetes at the time of initial diagnosis and then as required on an ongoing basis, based on assessment of need. While there was insufficient evidence to recommend a specific type of education, the appraisal outlined general principles of good practice.

The updated guidance (NICE, 2008) advises healthcare professionals to select a patient education programme that meets the criteria outlined by the Department of Health and Diabetes UK’s Patient Education Working Group (DH and Diabetes UK, 2005). Any programme should be evidence-based, have specific aims and learning objectives, and be delivered by trained educators.

Group programmes should be offered as the preferred option, and alternatives of an equal standard should be provided for people unable or unwilling to participate in group schemes. The programmes should meet local people’s cultural, linguistic, cognitive and literacy needs.

Practitioners should also ensure that all members of the diabetes healthcare team are familiar with the education programmes available locally, and that the schemes are integrated with the rest of the care pathway. Patients and carers should have the opportunity to contribute to the design and provision of local programmes.

DIETARY ADVICE
Good nutritional advice is important in the management of type 2 diabetes. Tailored and ongoing advice on diet should be provided by a healthcare professional with specific expertise in this area. It should be sensitive to the individual’s needs, culture and beliefs, and must take account of their willingness to change and the effects on their quality of life.

When providing nutritional information to people with type 2 diabetes, practitioners should emphasise advice on healthy, balanced eating that is applicable to the general population (see box, p18).

Dietary advice should be integrated with a personalised diabetes management plan,
including other aspects of lifestyle change, such as increasing physical activity and losing weight. For overweight patients, a target for initial weight loss should be 5–10% of body weight. However, it is important to remember that lower levels of weight loss may still be of benefit, while exceeding the initial target in the longer term will have a positive metabolic impact.

When patients are admitted to hospital or any other institution, a meal-planning system that provides consistency in the carbohydrate content of meals and snacks should be implemented.

**MONITORING BLOOD GLUCOSE**

Practice and diabetes nurses are vital in blood-glucose monitoring. NICE (2008) recommends that practitioners involve patients in decisions when setting target HbA1c levels. This may be above 6.5%, the general target set for people with type 2 diabetes.

Patients should be encouraged to maintain their target, unless side-effects (including hypoglycaemia) or their efforts to achieve this impair quality of life. Lifestyle advice and medication should be offered to help achieve and maintain the target level.

Patients with higher levels should be informed that any reduction in HbA1c towards the agreed target is beneficial to their future health. However, practitioners should avoid pursuing highly intensive management to achieve levels under 6.5%.

Nurses should measure HbA1c levels at 2–6 monthly intervals (depending on individual needs) until blood glucose levels are stable on unchanging treatment. They should use measurements made at an interval of under three months as an indicator of direction of change, rather than as a new steady state. Once blood glucose levels and therapy are stable, HbA1c levels should be measured at six-monthly intervals.

NICE recommends that self-monitoring of plasma glucose should be offered to newly diagnosed patients only as an integral part of their self-management education. Practitioners should discuss its purpose and agree how it should be interpreted and acted on. It should be available to:

- Patients on insulin therapy;
- Those on oral glucose-lowering medications to provide information on hypoglycaemia.

It should also be available in order to:

- Assess changes in glucose control due to medications and lifestyle changes;
- Monitor changes during any episodes of illness patients experience;
- Ensure patients are able to undertake activities such as driving safely.

**INSULIN THERAPY**

Practitioners should discuss the benefits and risks of insulin therapy when other measures no longer achieve adequate blood glucose control (to HbA1c under 7.5% or other higher level agreed with the patient). If patients agree, insulin therapy should be initiated.

When patients are beginning insulin therapy, healthcare professionals should use a structured programme with active insulin dose titration that encompasses the following:

- Structured education;
- Continuing telephone support;
- Frequent self-monitoring;
- Dose titration to target;
- Dietary understanding;
- Management of hypoglycaemia;
- Management of acute changes in plasma glucose control;
- Support from an appropriately trained and experienced healthcare practitioner.

**MONITORING BLOOD PRESSURE**

Nurses should measure BP at least annually in patients without previously diagnosed hypertension or renal disease. They should offer and reinforce preventive lifestyle advice.

For patients who are on antihypertensive therapy at diagnosis of diabetes, BP control and medications should be reviewed – changes should be made only in cases of poor control, or where current medications are not appropriate as a result of microvascular complications or metabolic problems.

BP measurements should be repeated within the following time frames:

- One month if BP is over 150/90mmHg;
- Two months if BP is over 140/80mmHg;
- Two months if BP is over 130/80mmHg and there is evidence of kidney, eye or cerebrovascular damage.

Patients should be given advice on diet and exercise at the same time.

For details on offering lifestyle advice and starting antihypertensive medication, see the guidance at www.nice.org.uk.

The guidance also contains recommendations on specific oral glucose control therapies, cardiovascular risk estimation, the management of blood lipid levels, anti-thrombotic therapy, screening and managing kidney damage, eye damage and nerve damage.

**DIETARY ADVICE IN TYPE 2 DIABETES**

General nutritional advice for patients with type 2 diabetes (applicable to the general population):

- Encourage high-fibre, low-glycaemic-index sources of carbohydrate, such as fruit, vegetables, wholegrains and pulses;
- Include low-fat dairy products and oily fish;
- Control the intake of foods containing saturated and trans fatty acids.

Specific advice for patients with type 2 diabetes:

- Tailor advice for carbohydrate and alcohol intake, and meal patterns;
- Advise individual patients that limited substitution of sucrose-containing foods for other carbohydrate in the meal plan is allowable but that care should be taken to avoid excess energy intake;
- Discourage the use of foods marketed specifically for people with diabetes.

Source: NICE (2008)