Development of a primary care specialist diabetes nursing service

Helen Hollern and Jayne Lunn

ARTICLE POINTS

1 East Cambs and Fenland PCT covers a mainly rural area where uptake of health services is limited by the ability to access them.

2 It was apparent that service provision for diabetes specialist nursing was inequitable across the PCT.

3 Analysis of service provision indicated that the provision of a PCT-based specialist diabetes service would improve access to care.

4 The PCT appointmented a primary care diabetes nurse facilitator and attendance rates at her clinic were excellent.

5 The specialist service has tackled patient and healthcare professional education, and has resulted in decreased HbA_{1c} levels.

KEY WORDS

- **Specialist diabetes services**
- **Primary care**
- **Diabetes specialist nurse**
- **NSF for Diabetes**

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Introduction

The *National Service Framework for Diabetes* Standard 4 (DoH, 2001) states that all those living with diabetes will receive high quality care throughout their lifetime. This emphasis on quality ensures that the management of people with diabetes is at the forefront of the clinical agenda and the clinical governance agenda for primary care, where much of the diabetes care is provided. This article describes the development of specialist diabetes services within East Cambridgeshire and Fenland Primary Care Trust to support the delivery of high-quality diabetes services in primary care.

East Cambridgeshire and Fenland Primary Care Trust (PCT) was formed in April 2002 following the merger of Fenland PCT and East Cambridgeshire PCG. The merger brought together three community hospitals, 17 GP surgeries and a range of community therapy and nursing services.

The PCT has a registered population of 145 862 (FHS Registration System, 2003), with a prevalence of diabetes of approximately 3.8%. The area covered by the PCT is mainly rural, with an economy largely based on agriculture, intensive arable farming and light industry. Income levels in some areas of the trust have traditionally been low and public transport is poor. The PCT does not have a district general hospital within its boundary; instead, residents have to travel an average of 20 miles to access one of five acute hospitals outside the PCT boundary.

East Cambs and Fenland has the highest proportion of people aged over 65 in Cambridgeshire (19%), and this is higher than the national average (16%) (Robin and Eastment, 2002). Age is a determinant of increased use of health services (Eastment, 2003) and demand for diabetes specialist services is likely to rise. For both men and women, the proportion of people with diabetes increases with age. The British Diabetic Association (1995), now Diabetes UK, suggests that <1% of men aged 15–44 years have diagnosed diabetes, compared with around 9% of those aged 75 and over. In Fenland, 25% of the total population increase since 1981 has been in the over-65s, and it is predicted that over 40% of the overall population growth is likely to occur in those aged 65 and over (Robin and Eastment, 2002).

Uptake of health services is limited by the ability to access services. Certain groups, particularly older people who do not drive, are limited by distance from services. Within East Cambs and Fenland PCT, access to public transport is limited, particularly in rural areas. Furthermore, car ownership in the four main market towns is particularly low, with a subsequent increased reliance on public transport.

History of primary care diabetes provision

People with diabetes within East Cambs and Fenland PCT have traditionally been managed in general practice via annual review clinics, which are generally practice nurse or GP and practice nurse led. However, the more complicated cases have been managed in the secondary care setting.

Before the development of the primary care specialist nursing service, people with diabetes who required specialist intervention were referred to the secondary care specialist nursing service. However, it was apparent that service provision for diabetes specialist nursing was inequitable across the PCT, owing to the complicated geographical secondary care

provision. Analysis of the levels of service provision indicated that the provision of a PCT-based specialist diabetes service would increase access to specialist care and provide a valuable resource to increase the diabetes knowledge and skills base in primary care.

Development of a primary care diabetes specialist nursing service

The *National Service Framework (NSF) for Diabetes: Standards* (2001) identifies those with poor diabetes control, and hence at greatest risk of developing the complications of diabetes, as a national priority. Following its initial analysis, East Cambs and Fenland PCT recognised the need for a specialist diabetes nurse facilitator to support this national priority at a local level.

Partners within the pharmaceutical industry, including Astra Zeneca, Novo Nordisk and Napp, who were keen to develop primary care-based services, provided funding for the first year of the service. The PCT provided an ongoing commitment to a continuation of the service beyond the first year.

The aims of the primary care diabetes specialist nursing service are:

- to provide specialist clinical management of people with complex diabetes needs
- to provide education and training for staff in all areas of diabetes management
- to develop the skills of primary care staff so that they may support and enable individuals to self-manage their diabetes
- to reduce the number of people with diabetes referred to secondary care by supporting them more effectively in primary care
- to increase access to services for people with diabetes
- to reduce the incidence of the complications of diabetes by improved clinical and self-management.

To fulfil these requirements, the PCT appointed a primary care diabetes nurse facilitator in May 2003.

A primary care model of diabetes specialist services

Traditionally, some clinicians within East Cambs and Fenland had received very little access to specialist diabetes nursing services, and initially were slow to use the newly instigated specialist service. However, referrals to the service quickly increased, and specialist clinics were established in the majority of practices across the Trust.

Practices were asked to identify the specialist support they required to enable those with diabetes to receive the standard of service specified in the diabetes NSF. This varied between practices, but included the provision of specialist clinics in practices and undertaking home visits. One single-partner GP practice utilised the expertise of the specialist nurse by undertaking a group session for patients who required specialist intervention. This innovative approach in a very rural community was undertaken with the full consent of the individuals concerned.

People with diabetes referred to the service have their annual diabetes review in the practice before referral. This ensures that clinical information for decision making is available at the time of the specialist nurse consultation. Appointments in the specialist practice-based clinics are 30 minutes in duration. This is the minimum required, given the complex medical history of those referred to the service. Information from the consultation is entered onto the practice system. This gives the GPs and practice nurses access to the information discussed in the consultation, any treatment changes made and the individual's self-management plan.

Data are also entered onto a database specifically designed around the information requirements of the service. This provides details of all consultations in general practice, home visits and telephone contacts outside the clinic setting. This also provides the Trust with robust contact data as well as anonymised clinical information.

Attendance rates at the specialist nurse clinics have been excellent, owing to the proximity of these services to patients' homes, and to the primary care clinicians' emphasis, to those with diabetes, on the importance of specialist nurse intervention in enabling them to manage their diabetes more effectively.

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5 Patients referred to the service have their annual diabetes review in the practice before referral, so that clinical information for decision making is available at the time of the specialist nurse consultation.

Impact of the service: a primary care perspective

Dr Alex Manning, GP, details the impact of the service in his practice.

"The specialist diabetes nurse facilitator has enabled us to improve our diabetes care in a number of ways.

"First, the nurse has seen many of our most difficult patients (taking over the management of many people with type 1 diabetes from the local hospital) and helping us with insulin starts for poorly controlled people with type 2 diabetes. This has greatly improved access to high quality diabetes care for these patients. On average, the specialist nurse has improved the HbA_{1c} of the patients seen in the first six months by about 1% (Figures 1 and 2) – a very good effort given that they are our most challenging cases!

"Secondly, and perhaps more importantly, the diabetes specialist nurse has encouraged the rest of our team to improve the management of all aspects of diabetes through clinical governance activities and support of the GPs and nurses. I am sure this is the main reason why our diabetes statistics have improved so much. We now already have maximum quality points for the levels of HbA_{1c}, cholesterol and blood pressure in those with diabetes as regards the new GP contract.

"We hope, in the future, to take over the management of more patients from secondary care where appropriate – providing better access to high quality diabetes care for people with diabetes, and allowing secondary care to concentrate on the more challenging cases."

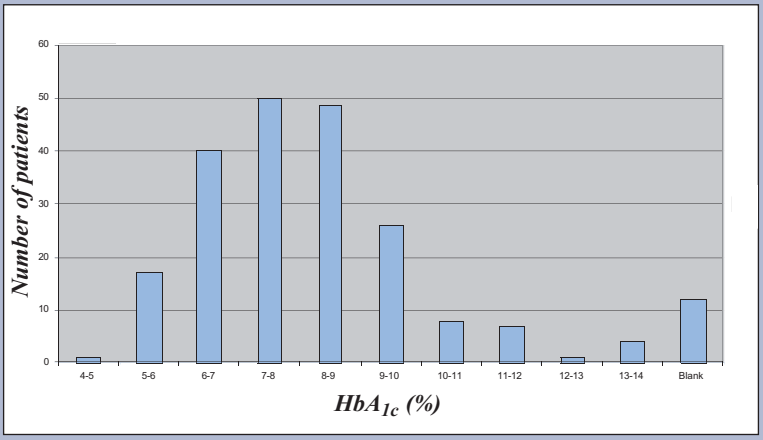

Figure 1. HbA_{1c} levels at 1 February 2003.

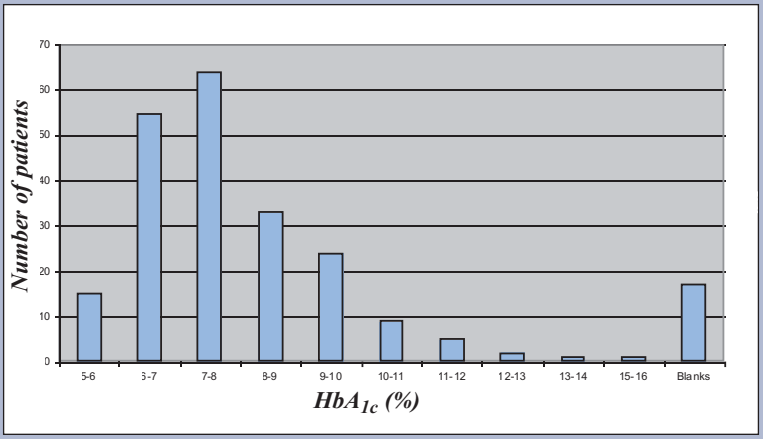

Figure 2. HbA_{1c} levels at 15 March 2004.

Both GPs and practice nurses sit in on the specialist nurse clinics. This provides a valuable opportunity for them to share information and undertake case discussion, thereby increasing the knowledge base in primary care.

Follow-up after the initial consultation is arranged according to need, and this is left to the individual with diabetes to decide. This is supported by the partnership between the patient, specialist nurse and GP/practice nurse in decision making regarding therapy changes, agreement of a care plan for self-management, and a named contact within the service.

A large proportion of follow-up is undertaken by telephone or e-mail. The service supports the principle of empowerment of the person with diabetes. Individuals are rarely contacted by the nurse; instead, they are encouraged to contact the service with their follow-up information if they consider it necessary or have any questions or concerns. This allows people with diabetes to develop confidence, empowers them to self-manage their condition and decreases their reliance on healthcare professionals.

Education and training for health professionals

East Cambs and Fenland PCT places great emphasis on continuing education and training on the management of diabetes. The *NSF for Diabetes: Standards* (DoH, 2001) states that all health professionals involved in the diagnosis and care of people with diabetes should receive continuing training.

To support this standard, the Trust actively encouraged members of the multidisciplinary team involved in the management of patients with diabetes to undertake the Warwick Diploma in Diabetes. This encouraged practitioners to review their diabetes management, and also led to the development of the East Cambs and Fenland Diabetes Interest Group.

This group meets quarterly and comprises an educational forum with guest speakers. It provides an opportunity for discussion of clinical and service issues and anonymised case discussion. The group is multidisciplinary and encourages the sharing of information to promote best practice.

As the PCT covers a wide geographical area (*Figure 3*), over which staff are widely dispersed, the consistently high attendance at these meetings clearly demonstrates the ongoing commitment of healthcare professionals to improve diabetes services.

Patient education

The specialist diabetes nursing service, in conjunction with health professionals and patients, has produced a series of education leaflets for patients and carers within the Trust. The leaflets are currently being illustrated by local schoolchildren. Once complete the leaflets will be available on CD-ROM and via the Trust website. This initiative aims to standardise the information available to patients across the Trust.

Challenges to providing diabetes care across the PCT

The Trust has a large traveller community; some of these live on allocated sites and others have settled on purchased land. A large proportion of this community is unable to read or write, and frequently do not attend appointments sent by letter. They travel frequently, moving around the countryside following seasonal work patterns, and may therefore be away from their registered practice for some time.

Education and information on diabetes for this particular group must be provided in a format that they are able to understand. Empowering and enabling self-management of diabetes for individuals within the travelling community can be

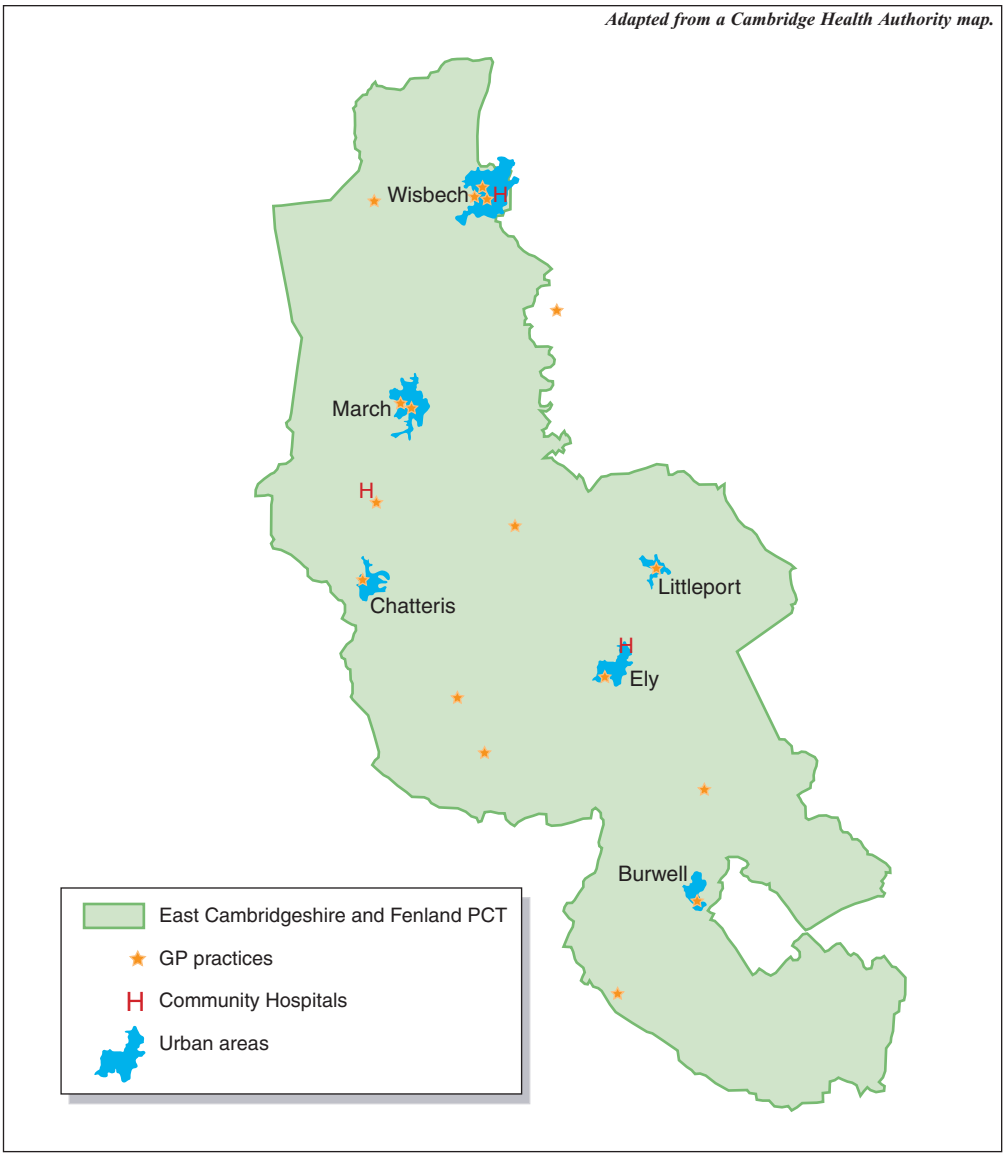

Figure 3. Map showing the wide geographical area covered by East Cambridgeshire and Fenland Primary Care Trust.

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1 The specialist diabetes service, in conjunction with health professionals and patients, has produced a series of education leaflets for patients and carers within the Trust.

2 This initiative aims to standardise the information available to patients across the Trust.

3 The Trust has a large traveller community, some of whom are unable to read or write.

4 They travel frequently, following seasonal work patterns, and may be away from their registered practice for some time.

5 Education and information on diabetes for travellers must be provided in a format that they are able to understand.

PAGE POINTS

1 One of the challenges facing the Trust is to provide continuity of care for people with diabetes in the large traveller community.

2 By building a relationship based on trust and respect, the DSN is able to encourage and support the traveller to consider lifestyle and therapy changes appropriate to his/her situation.

3 The service's principal aim is to improve the quality of life for people with diabetes and empower them to manage their own health.

4 In the future, the team hopes to focus on primary prevention of diabetes, support with lifestyle issues, particularly obesity, and increasing the skill base in primary care for the initiation of insulin.

Impact of the service: a primary care perspective

Dr Derek Yull, GP, gives his views on the service.

"I have been a full-time GP Principal for just 18 months, and having the specialist diabetes nurse services available to the practice for eight months or so now has been very beneficial to both the patients and myself. A lot of patients in this area do not wish to travel the 15 to 20 miles to the nearest hospital, and good primary care is vital for these people's management. My own diabetes knowledge and experience upon joining general practice was fairly limited and the specialist nurse has been extremely helpful educationally. I am in no doubt that my interest in diabetes has been stimulated and I have already learnt a great deal. This is probably the key to her success – by being enthusiastic and knowledgeable about the subject she encourages others to get involved.

"Clearly there needs to be cooperation from staff within each surgery in order to allow the diabetes specialist nurse to do his/her work. They are effectively independent practitioners, and are therefore able to make decisions and changes in patient management. Judging by the comments from patients and staff, the experience of having the diabetes specialist nurse attending our practice has been very positive."

challenging, particularly as access to prescriptions may be limited. This may be compounded by an inability to read the medication instructions. Travellers live in close-knit communities, often with the extended family, and this provides an opportunity to empower relatives and carers to support others with diabetes.

Where possible, the aim of the specialist diabetes nursing service is to provide continuity of care for people with diabetes in the traveller community. By building a relationship based on trust and respect, the diabetes specialist nurse is able to encourage and support the individual to consider lifestyle and therapy changes appropriate to his/her situation.

The behaviour of individuals is heavily influenced by the social, economic and physical environment. The area covered by the Trust has an economy largely based on agriculture, with a corresponding low income. The likelihood of socio-economic deprivation and decreasing life expectancy increases northwards through the PCT. Levels of obesity are increasing, and this is exacerbated by the poor transport links which inhibit access to sports and leisure facilities. These factors, coupled with low incomes, reduce the ability of many individuals to make healthy lifestyle choices.

Future developments

Following the rapid uptake of the service, the team has now been expanded to include a second specialist nurse. There are plans to build on work undertaken by the Changing Workforce programme on the use of chronic disease technicians (diabetes). A technician (trained to NVQ level 3) is to be appointed to assist the specialist diabetes nursing team with patient education and lifestyle management. This will support expansion of the service into the community hospitals, and free capacity within the service to see those who are unable to attend the GP surgery, e.g. people who are housebound.

Other areas that the team hope to focus on in the future include primary prevention of diabetes, support with lifestyle issues, particularly obesity, and increasing the skill base in primary care for the initiation of insulin. The service's principal aim is to improve the quality of life for people with diabetes and to empower them to manage their own health.

The service has been in operation for less than a year and the Trust plans to evaluate the service in terms of both the impact on clinical outcomes and patient satisfaction. This evaluation will be undertaken shortly. ■

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