

# A model of integrated diabetes care in primary care

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## Introduction

**An integrated clinic for the care of patients with diabetes mellitus was organised in the author's practice, following a needs assessment of this patient group which highlighted inequalities in their healthcare provision. This article describes the development of the service, highlighting its effect in empowering the diabetes team and promoting cohesive teamwork. This model of care has developed over 7 years. The need for input from secondary care gradually decreased as the education and experience of the team increased. Close collaboration with secondary care has continued, utilising the facilitative role of the DSN.**

A needs assessment of our practice population of patients with diabetes mellitus highlighted inequalities in health and healthcare provision. The extent of inequalities in health in this country was first identified in the Black Report in 1981 (Townsend et al, 1982).

Inequalities in health provision are found not only in deprived inner cities, but also in rural areas. This was evident in our assessment, with 36.7% of the practice population living more than three miles away from the surgery – many in remote villages without public transport. The taxi fare for a visit to the health centre could cost up to £15, so it was not surprising that many patients only attended when their need was acute.

This was apparent from the number of patients who were using non-state-registered private podiatry services because it was cheaper and easier to pay for private treatment in their own homes than to access the state-registered service at the health centre. Also, younger, working patients who commuted to towns other than the town in which the local hospital-based diabetes centre was based would have the added expense of having to take a whole day off work.

At the time of assessment the care of the patient with diabetes was demand led, depending on the interest of the GP concerned, the motivation of the patient, and the complexity of other diseases that may bring patients to the attention of their GP.

*Publisher's note: This image is not available in the online version.*

## Developing an integrated service

An organised system for the delivery of diabetes care is both essential and complex. The British Diabetic Association (BDA, 1997) agrees that:

**'The achievement of good outcomes for people with diabetes is dependent on the provision of well-organised and integrated diabetes care.'**

The BDA supports the notion that the GP is pivotal in the development of effective diabetes care.

There are advantages and disadvantages in having a designated 'mini clinic'. The advantages are that there is sufficient protected time to meet the full needs of the patient, it is easier to access other healthcare professionals, and it enables organisation of follow-up and detection of defaulters. A disadvantage is that it herds patients into a specific clinic time and does not have the same flexibility as surgery times (Connor and Boulton, 1989).

## ARTICLE POINTS

**1** An integrated clinic for the care of patients with diabetes mellitus was organised in the practice.

**2** The team collaborates closely with secondary care, using the facilitative role of the DSN, providing a needs-led rather than demand-led service.

**3** There are no hierarchies in the team; we respect each other for the input provided, including that of the patient.

**4** The need for input from secondary care gradually decreased as the education and experience of the team increased.

## KEY WORDS

- Needs assessment
- Inequalities in health
- Empowerment

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**PAGE POINTS**

- 1 An empowered team is needed to achieve a common goal.
- 2 A working document was drawn up by the team, setting out standards of care and clinical guidelines.
- 3 Following diagnosis the patient is seen only by the clinic nurse for the first few sessions.
- 4 This means that patients are not passed from one healthcare professional to another at a time when they are most vulnerable.

**The diabetes team**

Although it is the responsibility of GPs to ensure that all patients on their list receive effective care for their diabetes (BDA, 1997), the care is provided by a range of professionals. This care needs organising irrespective of whether it is provided as part of an integrated clinic or within a surgery setting. It need not be the GP who organises this care. In this case it was the practice nurse who acted as facilitator to lead the team forward.

It requires an empowered team to promote cohesive teamwork and strengthen relationships in order to achieve a common goal. Hokanson Hawks and Hromek (1992) suggest that:

**‘Empowerment is an interactive process that develops and increases power through cooperation, sharing and working together (page 231).’**

All those people who will be involved in a project need to be involved at the beginning in order to convey ownership of the project.

One disadvantage of developing a diabetes team is that tensions, and perhaps distrust, can be generated within the main group by the introduction of a professional subgroup. This could lead to the creation of a disempowered work force in the larger team, i.e. the primary healthcare team (PHCT). In order to prevent this, each discipline kept their peers informed of changes and progress within the clinic.

The team, led by a practice nurse, consisted of a practice-employed clerk, community podiatrist, community dietitian, two GPs, district nurse, diabetes specialist nurse (DSN) and, of course, the patient, all of whom had an interest in diabetes and appropriate extra training. Within each professional group there is continuity of staff (i.e. the same podiatrist/dietitian/nurse, etc.); this has the advantage that staff can improve their skills and patients have continuity of care. The disadvantage is that the remaining practice staff are in danger of becoming de-skilled (Farr and Watkinson, 1993).

The team developed a practice protocol with a treatment pathway guide and patient records over a series of meetings.

At this stage it was felt that it would not be practical to include a patient representative at the meetings, as they were likely to be clinical. However, it was not ruled out for the future; indeed, patients were asked for their views on certain aspects of the developing project. Also, changes to the organisation of the clinic were made following suggestions from patients as the clinic progressed.

**Protocol**

Antrobus and Brown (1996) suggest that guidelines and protocols may be used by healthcare professionals to assist them in making decisions about the appropriateness of health care in specific clinical circumstances. These authors and Humphris (1994) agree that clinical guidelines should have broadly defined outcomes and should be based on the best available research and opinion. Guidelines may be locally or nationally derived, but should be evidence based and outcomes focused.

Humphris (1994) points out that amassing and synthesising information about what is best practice is time-consuming. For the team to have met without any prior research would have been too onerous a task. The practice nurse therefore provided a blueprint protocol/guidelines after many hours researching both expert opinion and national and international guidelines, such as those in the BDA Report (1997). This gave some focus to the meetings without removing the joint ownership of the work, and enabled the team to move through a huge piece of work at a much faster rate.

By the end of the session, each team member was aware of his/her own responsibilities and those of other members. A working document was drawn up, setting out standards of care and clinical guidelines (Table 1).

**Consultation pathway**

Once a patient has been diagnosed with diabetes, using the criteria set out in the protocol, the patient is seen by the clinic nurse only for the first few sessions. It is hoped that by breaking the learning into smaller units, anxiety will be reduced and the learner will build up a sense of achievement (Rogers, 1986). The use of this system means that patients are not passed

**Table 1. Information contained in the protocol and guidelines**

Mission statement
Target population
Register
Referral
Clinic personnel
Diagnosis
Targets for control
Consultation pathway
Initial assessment
Annual/routine review
Treatment pathway
Gestational diabetes
Visual acuity/fundoscopy
Complications
Guide to adjusting insulin
Audit/quality review

from one healthcare professional to another at a time when they are most vulnerable.

The nurse builds up a relationship of trust and empathic understanding with the patient which facilitates learning (Quinn, 1995). The nurse can immediately refer the patient to other members of the team if it is felt necessary.

Fitzgerald Miller (1992) suggests that a recommendation to change behaviour should ideally be given to patients immediately following diagnosis. There could be quite a delay in their receiving this advice if the annual review clinics are only held monthly, and it would be a waste of resources to keep an appointment free in each clinic.

The nurse will then ensure that the diagnosis is entered on the computer in a standard format, ensuring easy access to audit later on. In a large practice it is very difficult to ensure that every professional uses the same read code, e.g. you could have a newly diagnosed patient with type 2 diabetes entered as 'non-insulin-dependent diabetes', 'maturity-onset diabetes', 'late-onset diabetes' or 'diet-controlled diabetes'.

### Follow-up

Once glycaemic control has been established and initial education completed, the nurse refers the patient to the annual review clinic for initial assessment by the podiatrist, dietitian and GP. A package of care tailored to meet the needs of the individual patient is then drawn up.

All patients with diabetes are seen annually in the annual review clinic, unless physically unable to attend, in which case domiciliary visits are carried out by the appropriate health professional. All patients are also seen annually in the routine (nurse-only) clinic. Thus all patients will be seen in a clinic at least once every six months.

During the annual review clinic, patients are assessed but not treated. This means that nobody overruns, the clinic is not delayed, and neither patients nor staff are kept waiting. Again, this could lead to feelings of powerlessness for both patients and staff (Fitzgerald Miller, 1992). All personnel working in the clinic arrange their own recalls, in their own surgery times, if needed.

### Organisation of the clinic

The GP, practice nurse, dietitian and podiatrist working in the clinic each have 20 minutes with each patient in rota; the notes are shared and accompany the patient to ensure continuity of care. The role of the clerk is pivotal in maintaining the smooth running and time keeping of the clinic. Biochemical tests are done in advance so that the results are to hand at the clinic and can be acted upon without having to bring the patient back again.

The clerk liaises with the nurse concerning appointments. An annual spreadsheet is kept to ensure even distribution of patients over a year and to make sure that there will be sufficient spaces for the number of patients all to be seen in the coming year. No more than two new patients are seen in any one clinic.

### Transport

Because the practice is a rural one, transport is a problem. We are very fortunate in that the local Red Cross is able to provide transport, via their network of local volunteer drivers, for those who would otherwise be unable to attend. There is a small cost to the patient, paid direct to the Red Cross, and we are able to help with this by grouping patients by their locality, thereby enabling them to share the cost, which is a fraction of the cost of a private taxi. Most of the patients also like this system as it makes it a social occasion.

### New ventures

We have set up self-testing urine kits in the lavatories of the health centre, which can be accessed by any of the public. We have diagnosed at least two patients as a direct result of this over the last year.

The team, particularly the nursing team and the GPs, have gradually increased in confidence, with continuous extra training in handling conversions to insulin for people with type 2 diabetes and conversions to basal bolus for those with type 1 diabetes where indicated.

### Audit and evaluation

#### Clinical audit

We decided to use the audit cycle described by Malby (1995) as it was well

### PAGE POINTS

**1** The diagnosis is entered onto the computer in a standard format, ensuring easy access to audit later on.

**2** Designated care packages are drawn up for each patient at the annual review clinic.

**3** At the annual review clinic, patients are assessed but not treated.

**4** Patients can arrange to share the cost of transport by participating in a local Red Cross scheme.

**5** At least two patients have been diagnosed as a direct result of self-testing urine kits being set up in the lavatories of the health centre.

**PAGE POINTS**

**1** A clinic audit highlighted the need for accurate data collection by all members of the practice team.

**2** Patients are asked for their feedback on the service both verbally and in questionnaires.

**3** There are no hierarchies in the team.

**4** Each team member, including the patient, is respected for their input which is reflected in the low number of defaulters.

known to all of us. This involves a systematic review of practice, identifying problems, developing possible solutions, implementing change and then back to review again.

We were experiencing the same problem as Tasker (1998) in that letters from hospital 'shared care' clinics were being filed by reception staff or other GPs without their contents being entered onto the computer template. This highlights the need for commitment from other members of the practice team to enable efficient data collection. As we now had agreed criteria for good practice, we were able to measure our performance against these criteria.

**Customer satisfaction**

*The Patient's Charter* (NHS Management Executive, 1992) was a stimulus for audit, but the minimal information required to support the chronic disease banding is not sufficient for a quality control audit. The team felt that audit should encompass more than just medical audit.

Baker et al (1995) suggest that we have to turn clinical audit on its head and stop looking at quality from our own perspective. He believes that the strengths and weaknesses of health teams can only be identified by standing in the patient's shoes and looking through his/her eyes.

*The Patient's Charter* emphasised the need to consult with and involve service users on the level and nature of the services provided for them. Higgins (1993) suggests that this encourages a greater dialogue between providers and users, thus empowering the users. In practice, patients are asked for their feedback both verbally and in questionnaires.

Most feedback has been positive, the majority commenting on the easy access and continuity of care. Earlier negative feedback on being asked the same questions by each healthcare professional prompted the reorganisation of patient records.

**Peer review**

The wider team, including other staff from the primary healthcare team, as well as the DSN, meets annually. Individual peer review is also carried out within the professions: the clinic nurse, for example, is reviewed, albeit informally, by the DSN.

**Conclusion**

The team works effectively to provide seamless care for patients with diabetes. There are no hierarchies in the team: each member has equality of status in the team and equality with regard to the input of knowledge. We respect each other for the input that each makes to the clinic and to its organisation, including the patient. This is reflected in the relatively low numbers of defaulters — currently running at 3.6%.

We feel that we are now an empowered team, able to empower patients with diabetes in our practice. The team collaborates closely with secondary care, providing a needs-led as opposed to a demand-led service.

Following the recent announcement from Frank Dobson, Secretary of State for Health, that the next National Service Framework to be undertaken by the NHS will be diabetes, we are hopeful that the shortfall in training packages and remuneration for primary healthcare diabetes teams will soon be addressed. ■

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