Systematic review of patients with diabetes: is it happening already?

Gwen Hall

ARTICLE POINTS

1 The NSF for Diabetes advocates use of practice-based registers for systematic treatment regimens and advice.

2 Despite an increase in the number of patients on our register, there was no increase in time allocated to see them in.

3 A receptionist and a health care assistant joined the team, and the number of hours spent on diabetes care by the practice nurse were also increased.

4 In this way, by the end of a year we had built up detailed information on at least 75% of our patients.

5 Missing information was due to lack of computerised data from hospital.

KEY WORDS
- Systematic
- Annual review
- Registers
- Audit
- Standards

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Introduction

As recently as 1994, 10 out of 11 localities studied fell short of standards and targets for annual reviews (HMSO, 1994). Although we provided an excellent service to those who attended our clinic we were shown to miss details on those who did not. So we implemented a systematic approach to call and recall offering a full annual review to people who are not being seen elsewhere for their diabetes management and an improved level of follow-up by trained health professionals. The next big step we intend to take is to assess patient satisfaction with the service.

The long awaited NSF for Diabetes (DoH, 2002) sets two critical national diabetes specific targets. One is related to eye screening and the other to the use of practice-based registers for systematic treatment regimens and advice.

Whilst we watch with interest for developments in eye screening, many of us are already using our registers effectively. Our centre, Haslemere Health Centre, is cited by the Department of Health on its website as an area of good practice, and I was mentioned in my role as practice nurse for co-ordinating the team approach to annual review. We have audited our diabetes care and instigated changes to successfully manage all patients on the diabetes register.

Why do we need a systematic approach?

Diabetes is a lifelong condition, which can lead to complications involving almost every area of the body. Studies have shown that effective stabilisation of blood sugars and blood pressure can halt the progression of these complications or even prevent their occurrence (DCCT, 1995; UKPDS, 1998). But people with diabetes should expect better than basic care centered around weight, blood pressure and sugar, which often takes the place of good systematic care. Patients should be involved in their own management; after all, they take on most of the work (Callaghan and Williams, 1994).

Sinclair et al (1996) provide guidelines for systematic care of older people, who form the majority of our patients with diabetes. They place great importance on a systematic approach that includes initial assessment, ongoing education and annual full review. That this approach works is confirmed in great detail by Kendrick (2000) who has evaluated the impact of prompted, systematic, protocol-based care for a GP practice. It is this systematic approach that we, the team responsible for diabetes management within the practice, aim to promote.

Initial audit

We investigated the attendance levels at a weekly diabetes clinic, which we had run for a year (in 1990). At that time, we had 125 people on our diabetes register and could easily accommodate all those who were not being seen in the hospital within the practice system. We did the usual investigations: HbA_{1c}, lipids, renal and thyroid function. We involved the patients and their carers in the education process and the monitoring of results. As practice nurse at this time, I saw patients through a flexible follow-up system working with a dedicated GP.

Our annual audit showed that HbA_{1c} levels were improving overall and we had only six defaulters from the clinic.

Now, many years later, we have 363 people on our register – and, until recently, no increase in the amount of time to see them. In addition, as a result of the increased involvement of the primary care team in the management of diabetes, including insulin

Table 1. The diabetes annual review

- Full clinical examination
- Weight (BMI)
- Blood pressure
- Urinalysis for protein (microalbumin)
- HbA_{1c}
- Urea and creatinine
- Lipids
- Visual acuity
- Fundoscopy
- Examination of feet and lower limbs
- Examination of injection sites in type 1
- Agreed realistic glycaemic goals
- Education and management plan
- Home monitoring
- Risk factor modification
- Dietitian
- Chiropodist/podiatrist

Adapted from recommendations for the management of diabetes in primary care (BDA, 1997)

management, we needed to find a more effective way of managing diabetes care.

Planning a more efficient system

The key team members, two GPs, a practice nurse and health visitor decided to undertake an audit of the patients seen in 2000 and use the results to plan a more efficient system for 2001 and beyond. With numbers of people with diabetes expected to double in 10 years (Waine, 1999) and very well publicised inadequacies in care (Audit Commission, 2000) we felt that organisation of care was our top priority. Further audits of specific aspects of care, such as HbA_{1c} levels and blood pressure targets, would then be more meaningful.

Orchard (1998) outlined the benefits of a well organised and effectively delivered system of care on the prevention of complications:

- Achieving good blood glucose control reduces retinopathy by 76%. So no surprise that it is now a major target for the NSF Delivery Strategy. It also lessens risk of renal damage by 60%.
- A 50% reduction in renal deterioration, 60% lower risk of peripheral vascular disease and 85% lower risk of cardiovascular disease could be achieved by improved control of blood pressure.
- Smoking cessation, weight reduction and increased activity all play their part in prevention of complications, or halting their progression if already present.

Defining criteria and standards

The first step in the audit process is to identify the problem and set standards for the data search to follow. Through team meetings, we decided that 75% (242 of 323) of our total diabetes register should be the standard number to have a full annual review of their diabetes within the practice programme. This number was chosen to reflect the fact that we do not see any of the 16 young people with diabetes, who all attend the hospital specialist team, and those with moderate to severe complications who are also seen at the hospital. One unforeseen problem was that the 38.7% (125) of patients recorded as having had an annual review in our practice had a complete record of investigations, education and screening measures (*Table 1*), but unfortunately it transpired that only those attending the clinic had that information recorded in a structured way using our diabetes template. Others followed up by their own GP, in nursing homes or attending at different times had gaps in the information available, which a more structured approach would fill.

Data collection

We found that 38.7% (125) of patients had a full annual review recorded in the practice; 3% (10) had had an annual review in hospital and 2% (7) had shared care. Although many components of the annual review were recorded for the remaining 56.3% (182), for many patients there was no record of blood pressure and lipids levels in the last year.

Assessment of performance

After further team meetings, we concluded that our inability to meet our standards was

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1 We developed a structured care programme for screening and education based on the computerised diabetes template.

2 Extra time was allocated to follow up newly diagnosed patients, those with poor control of their diabetes or associated problems in general clinic sessions to ensure that annual review appointment slots were not blocked.

3 The district nursing team were also involved and worked closely with the practice diabetes team on initiation of insulin and targeting those unable to attend clinics.

due to problems of recording the information, especially from specialist attendance, and an inability to collect data on structured care in the 75% standard set. Many patients were seen several times through the year in the clinic, occupying appointments which could have been devoted to those who were not involved in a planned programme of care. Clearly, we needed to reform the system and start afresh.

We needed to retain the good points of our system where people with diabetes, their carers and relevant health professionals were involved. We developed a structured care programme for screening and education based on the computerised diabetes template. The template was used to record diabetes information on GP systems during the consultation. The plan was to offer the service annually to all those on the register, who were not already attending the specialist team, and involve them more in the process.

Changing the system

We decided to retain the full team approach on Monday afternoons, but to keep that session purely for annual reviews following agreed protocols. A receptionist was to be responsible for contacting patients 2 weeks before their appointment to ensure relevant blood tests were done in advance, so that results could be discussed with the patient on the day. Since then, a health care assistant has joined the team and searches out any patients who have no read code recording of 'annual review' within 12 months for the practice nurse to assess. The number of hours spent on diabetes care by the practice nurse were also increased.

Conclusions

In this way, by the end of a year we had built up detailed information on at least 75% of our patients. Extra time was allocated to follow up newly diagnosed patients, those with poor control of their diabetes or associated problems in general clinic sessions to ensure that annual review appointment slots were not blocked.

Moreover, one of the health visitors, Nicola Ward, successfully applied to have dedicated time for diabetes care, and also started seeing the new patients for education and monitoring, including visiting those who found it difficult to attend surgery. She obtained training in venepuncture and instigated investigations on those who required them. She also contacted defaulters from the review system to explain the changes and to ensure that they understood the importance of regular review. The diabetes template is for use by all health professionals and can be printed at the end of the consultation as a patient-held record, containing agreed goals and targets plus results of clinical investigations and health promotion advice. Use of the template will also improve communication with secondary care colleagues and prevent duplication of investigations.

The district nursing team were also involved and worked closely with the practice diabetes team on initiation of insulin and targeting those unable to attend clinics. We all had excellent support from the specialist team and one of the GPs. Nicola and I completed the University of Warwick diabetes course together, and now work as DSNs in primary care for Guildford & Waverley Primary Care Trust, whilst continuing to work with the team at Haslemere. ■

Audit Commission (2000) *Testing times. A review of diabetes services in England and Wales*. National Report Audit Commission, London (www.audit-commission.gov.uk)

British Diabetic Association (1997) *Recommendations for the management of diabetes in primary care*. BDA, London

Callaghan D and Williams A (1994) Living with diabetes: issues for nursing practice. *Journal of Advanced Nursing* **20**: 132–39

Department of Health (2002) *National Service Framework for Diabetes: Delivery Strategy*. DoH London (www.doh.gov.uk/nsf/diabetes)

Diabetes Control and Complications Trial Research Group (1995) Effect of intensive diabetes management on macrovascular event and risk factors in the diabetes control and complications trial (DCCT). *American Journal of Cardiology* **75**: 894–903

HMSO (1994) *Clinical Standards Advisory Group. Standards of Clinical Care for People with Diabetes*. HMSO: London

Kendrick D (2000) The effect of introducing prompted, systematic, protocol-based diabetic care in a practice: 18 months of improvement. *Practical Diabetes International* **17**(8): 255–60

Orchard T (1998) Diabetes: a time of excitement and concern. *British Medical Journal* **317**: 691–92

Sinclair AJ, Turnbull CJ, Croxson, SCM (1996) Document of care for older people with diabetes. *Postgraduate Medical Journal* **72(**848): 334–38

UK Prospective Diabetes Study Group (1998) Tight blood pressure control and risk of macrovascular and microvascular complications in type 2 diabetes: UKPDS 38. *British Medical Journal* **317**: 703–13

Waine C (1999) The future of diabetes care: a challenge for PCGs. *Diabetes and Primary Care* **1**(2): 36–37