

A survey of diabetes care in general practice in Northern Ireland

C J Kenny, M Pierce, S McGerty

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SUMMARY

We aimed to describe some key features of diabetes care carried out in primary care settings in Northern Ireland using a descriptive postal questionnaire survey sent to every general practice in Northern Ireland. 252 (70%) of practices responded. Of these 92% of practices have active registers of people with diabetes, identifying 1.9% of their population as having diabetes and 85% of practices use these registers for call/recall visits. Seventy five per cent of practices held diabetes clinics run by the general practitioner and nurse (63%) or a nurse alone (32%). Only 47% of practices felt they received adequate support from the acute diabetes team; with 29% meeting with them this team regularly and only 19% having a shared care protocol. Overall practices provided most of the routine care for 60% of their diabetic patients. The majority of GPs and practice nurses had received some diabetes education in the previous year. There has been a considerable change in the delivery of routine diabetes care in Northern Ireland. A large proportion of diabetes care now takes place in the community, much of it delivered by practice nurses. The organisational infrastructure necessary for the delivery of care is in place. Many practices have special interest in diabetes but the survey highlights a need for better communication and cooperation with secondary care. General practitioners recognise their educational needs in diabetes. They should also be aware of their practice nurses' needs, which should be addressed. There should be initiatives to improve the primary-secondary care interface in Northern Ireland.

INTRODUCTION

We report the outcome of a survey of the organisation of diabetes care in general practice in Northern Ireland. This survey follows on from one reported in 1991 in Northern Ireland¹ and uses a similar method to a survey undertaken in England and Wales reported in 2000.² From the previous study undertaken in Northern Ireland we know that by the late 1980's the focus of care for people with diabetes, especially those with Type 2, had begun to shift from hospital clinics to general practice. The authors of this study¹ sent a questionnaire to every practice in Northern Ireland and visited those practices which expressed an interest in further contacts.

The survey in England and Wales was undertaken approximately ten years after the Northern Ireland survey, and showed that a large proportion of diabetes care was being delivered in the community, much of it delivered by practice nurses. In the light of recent proposals to reform

primary care in Northern Ireland it was considered that it would be important to discover if there was a similar pattern of care in Northern Ireland.³

Systematic review of studies comparing standards of care delivered to patients with diabetes in primary and secondary care have shown that primary care can equal secondary care, but only where general practitioners (GPs) have a special

Dromore Doctors Surgery, 50 Gallows Street, Dromore, Co. Down, BT25 1BD.

C J Kenny, MB, FRCGP, MMed, General Practitioner.

Warwick Diabetes Care, University of Warwick, Coventry, CV4 7AL.

M Pierce, MD, MRCGP, MSc, MA, Senior Lecturer in General Practice.

Price WaterhouseCoopers, Fanum House, 108 Great Victoria Street, Belfast BT2 7AX.

S McGerty, BSc, Consultant.

Correspondence to Dr Kenny.

interest in diabetes, and the care is well organized.⁴ There have been many published reports of successful area-wide initiatives.⁵⁻⁸ These reports were all based in mainland UK and because of the enthusiasm of the individuals involved may give an over-optimistic impression of diabetes in primary care.

The aim of the current survey was to detail the degree of involvement in diabetes care reported by general practice and to identify the prevalence of the following key features of GP service provision in Northern Ireland: protected time for diabetes care; disease registers; practice nurses with some knowledge of diabetes; and written protocols agreed with local diabetologists. In 1997 the British Diabetic Association BDA (now Diabetes UK) and Primary Care Diabetes (PCD) UK recommended these key features for effective general practice diabetes care.⁹

METHOD

Refining the questionnaire

The authors (C.K., M.P.) were involved in the questionnaire development for the 2000 study.² This questionnaire was developed via iterative consultation with members of the PCDUK Steering Committee. As this questionnaire had been validated by this study it was decided to apply the same questionnaire in our study. It was decided to add two questions about problems and barriers to diabetes care to the previous questionnaire in order to identify problems particular to Northern Ireland. These questions were graded on a scale of 1 to 5 (1 no problem, 5 significant problems). The modified questionnaire

was piloted in 20 practices in August 2000.

The questionnaire included:

- Practice demographic information
- Organization of care patients within the practice
- Educational experience of the primary care team
- Interaction with local secondary care

The final questionnaire on primary care diabetes was sent to all 358 Northern Ireland practices addressed to named GPs. The covering letter specified that if the addressee was not involved in diabetes care it should be passed to a more appropriate partner. Non-responders were telephoned within one month and invited to complete the questionnaire on the telephone. Remaining non-responders were sent a second mailing in November 2000.

RESULTS

Seventy percent of practices (252/358) responded. The characteristics of the responding practices are shown in Table I. Practices responding to the questionnaire were similar in list size and numbers of practices to those of Northern Ireland as a whole. However all 69 training practices in Northern Ireland responded to the survey. Training practices are over-represented amongst the responders.

Involvement of the practices in diabetes

Table 2 shows the involvement of the practices in diabetes care. It also details key features of the organization of that care within general practice.

TABLE I
Characteristics of the responding practices

		<i>n</i>
Practice list size (mean)	5,647	252*
Number of principals per practice (mean)	3	252* ^a
List size per principal	1912	252* ^b
Number of training practices responding	69(27%)	252* ^c

* Number of practices that participated in survey

^a Mean number of principles per practice in Northern Ireland is 3

^b List size per principal in Northern Ireland is 1882

^c There are 358 practices in Northern Ireland in total of which 69 are training practices

TABLE II
The Organisation of diabetes care

	Yes(%)	n
Would you describe your practice as having a special interest in diabetes?	169(71%)	242
What is the total number of people with diabetes in the whole practice	108 (mean)	252
What percentage of these patients are having most or all of their routine diabetes care in general practice	151(60%)	252
Do you have an active register of patients with diabetes in your practice	232(92%)	252
Is it used for call/recall?	214(85%)	252
Is it fully computerised?	166(66%)	252
Do you have dedicated time for diabetes-only clinics in the practice?	141(75%)	188
How frequently are these held?		185
Weekly	35(19%)	
Fortnightly	55(30%)	
Monthly	75(41%)	
Other	20(10%)	
Who runs the clinic?		186
GP and nurse	117(63%)	
Nurse alone	59(32%)	
GP alone	10(5%)	
Median number of patients seen per clinic	8	

TABLE III
GPs and practice nurses attendance at courses/meetings in diabetes

	GPs*	Nurses**
Courses duration half a day	85(40%)	21(11%)
Course duration one day	72(34%)	56(29%)
Course duration more than one day	38(18%)	103(53%)
Duration not known	19(9%)	14(7%)

* 214 practices answered this

** 195 answered this

Almost three quarters of GPs stated that their practice had dedicated time for diabetes-only clinics. Over one third of practices see ten or more patients per clinic whereas, 18% see less than five patients per clinic. Most commonly GPs and nurses run the clinics together (62%). Nurses run 32% of such clinics alone. Clinics are seldom run by GPs alone (5%).

Most of the respondents would be keen to receive extra help to facilitate the clinics (68%). Of the percentage who volunteered what help might be most useful, forty percent of GPs stated that the presence of a dietician would be most useful with other types of assistance required including a chiropodist, more nursing staff and clerical hours, administrative support and a specialist diabetic nurse.

Education and training and professional contacts

Table III shows GPs and practice nurses attendance at courses and meetings on diabetes. The majority of GPs (85%) had attended a PGEA approved diabetes course or meeting within the last three years. The majority of the courses (73%) lasted for either a day or half a day, but

18% had attended a course that lasted for more than one day. In three quarters of practices, a practice nurse had attended a diabetes-training course within the last three years. Only 14% had not. Over half (53%) of these courses lasted for more than one day and 40% lasted for either one day or half a day.

Relationships with secondary care

These are detailed in Table IV. Less than half of the respondents considered that they received adequate support from the acute diabetes team. Only 29% of GPs or their practice nurses meet regularly with a member of an acute diabetes specialist team. The frequency of these contacts is detailed in Table V.

Over three quarters of practices do not operate a shared care protocol (79%). Only 19% operate this form of protocol, although there were a number of variations on how it operated. These positive respondents were asked to comment on how this operated. Eighteen percent of these said they 'followed local diabetes shared care guidelines'. Fifteen percent said they were 'sharing with local hospital'. The remainder used

TABLE IV

Relationship with secondary care

<i>Statement</i>	<i>Yes(%)</i>	<i>n</i>
Do you operate a formal shared care protocol?	47(19%)	252
Do you or your practice team meet with any members of an acute diabetes specialist team?	74(29%)	252
Do you feel the practice receives adequate support from the acute diabetes team?	119(47%)	252

Table V

Frequency of contact with an acute specialist team

<i>Frequency of contact with an acute specialist team member</i>	<i>Percentage</i>	<i>n</i>
Weekly	4(5%)	74
Monthly	16(22%)	74
Three monthly	12(16%)	74
Six monthly	10(14%)	74
Less often	32(43%)	74

TABLE VI

Problems and barriers to care

<i>Problems or barriers to care identified</i>	<i>Percentage of respondents who found the problem significant (graded 4 and 5)</i>
Getting patients to alter lifestyle	75%
Lack of time	52%
Communications with secondary care	30%
Patient non-compliance	21%
Non-attendance of patients	18%
Inadequate chiropody services	29%
Inadequate ophthalmology services	17%
Lack of access to hospital consultants	16%

less widely used processes such as the patient being seen by a consultant, and the GP providing on going care. A few patients had a co-operation card and juvenile and insulin dependant patients were principally referred to hospital care only.

Relationships with other external diabetes agencies

The GPs were asked whether there was a Local Diabetes Advisory Group. Seventeen per cent said there was no advisory group and 34% replied that there was. Almost half (49%) of respondents did not know. Only 30% of practices belonged to Diabetes UK.

Challenges to high quality primary diabetes care

GPs were asked to score problems experienced in providing care to individual diabetic patients on a scale one to five (5 equated to a major problem.) The most commonly reported major problems were getting patients to alter their lifestyles, lack of time, communication with secondary care, and inadequate chiropody services (Table VI).

When barriers to individual practices providing good diabetes care were considered, lack of time (reported as a major problem by 57% of GPs), under funding (57%), lack of space (26%) and keeping up to date (23%) all were scored between 4 to 5 on the 1-5 scale. As for problems with individual patients 26% considered lack of space, facilities and gadget as important. Keeping up to date with protocols was deemed a significant problem for the practice by 23% of GPs.

Problems were also identified in terms of specific areas of service provision. 29% of GPs considered that inadequate chiropody services presented barriers to the practice in providing diabetes care and inadequate chiropody and ophthalmology services were considered a problem by 16% and 17% of GPs respectively. A further problem identified by 16% of GPs was lack of access to hospital consultants. Other problems that were documented by GPs included having no diabetologists, a lack of dietetics, and lack of communication between hospital and GPs. Some GPs reported not being confident about the eye examination for diabetes.

DISCUSSION

Diabetes-related activity

An important result is the amount of diabetes-related activity that practices have reported. Allowing for the significant number of small or medium sized practices in Northern Ireland, the typical practice has 100 registered patients with diabetes. This concurs with the previous study done in England and Wales² and lies within the range of prevalence estimates of known diabetes registers (1.5%-2.08%),^{9,10} suggesting that practice registers across Northern Ireland are successful in recording known diabetes. This shows a considerable improvement from the 1988 N.I. survey when only 7% of practices could obtain numerical results from the computer.¹

Seventy one percent of the responding practices

described themselves as having a special interest in diabetes. These practices are delivering all or most of the routine diabetes care to 60% of their diabetic patients within a general practice setting.

This shows a considerable change in the delivery of care from the 1988 survey, when only 45% of the surveyed practices did diabetes care.¹ Other localized studies have addressed the percentage of patients who are fully managed that is have their annual diabetes review in general practice (40%-50%).^{10,11} A system of Chronic Disease Management was introduced throughout the UK in 1993, and we know claim that approximately 90% of general practices in N.I. claim chronic disease management payments. The requirements under this system are to ensure that reviews are taking place, and not to necessarily carry out the reviews within the practice.

Organisation of care

92% of practices in N.I. have an active register of people with diabetes. Chronic Disease Management of diabetes requires practices to keep a disease register. 85% of practices use this register for call/recall visits. This would suggest that these registers are kept for active reasons and the database of people with diabetes in Northern Ireland is held within general practice.

Over two thirds of practices have a fully computerised active register although one third do not. In the study reported in 1988 only 43% of practices had a practice computer, so this shows a considerable improvement.

Clinics

This study showed that diabetes clinics are the most common method of providing diabetes care in general practice. Most held monthly clinics. This is a considerable change from 1988 when only 15% of practices had special arrangements for diabetic patients. Most of the literature on 'best practice' assumes a clinic-based model.¹² This model has potential problems. It may lead to those not involved in the clinic becoming deskilled and disruption of doctor-patient relationships unless avoidance strategies are employed.

Moreover the clinic-based strategy may be inappropriate for some practices. 25% of the practices in the study did not have diabetes clinics. Typically the clinics in this study had approximately eight patients per clinic and were usually run jointly by the doctor and the practice nurse. These findings concur with the survey in

England and Wales,² suggesting that this is the most popular method of delivering care.

Role of the practice nurse

The study underlined the significance of practice nurses to the delivery of diabetes care in general practice. They were involved in running almost all the clinics either jointly with the GP or alone – 32% of GP clinics were run by the nurse alone. This emphasises the importance of providing adequate support for the practice nurses. In the 1988 survey less than one third of practices identified a practice nurse with an interest in diabetes. It is not clear from our survey whether GPs were also carrying out an annual review as recommended by Diabetes UK.

Education

Given this high percentage of diabetes care being delivered in general practice it is encouraging that most GPs were engaged in further training and recognised the importance of attending diabetes courses. The value of the educational experiences of these courses to the doctors and nurses is unknown and it should be recognised that many will have been supported by the pharmaceutical industry. The fact that most had attended a full day of PGEA – approved activity in the past three years reflects the reasonable provision of such courses in Northern Ireland.

This may be also borne out by the fact that the GPs reported less educational activity on the part of their nurses, with only three quarters attending course in the past year. This does not concur with the England and Wales study and presents an unrecognised need on the part of practice nurses for further training or initiatives supported by the boards. Diabetes UK holds at least one annual primary care orientated meetings locally. Unfortunately only 30% of practices locally are members of Diabetes UK. This is disappointing given the amount of patient and professional support that can be accessed through this charity.

Relationships with secondary care

There would appear to be a difference in our study and the England and Wales study in the amount of professional contact with secondary care. In the England and Wales 80% of practices received adequate support from secondary care and 60% had regular contacts. In Northern Ireland 29% had support and only 22% had regular contacts. This may reflect the either the relative dispersal of diabetes teams, or the rural nature of

general practice in Northern Ireland. They may feel that they can manage without support or they have a low expectation of support from secondary care.

Whilst podiatry and dietetics cover both secondary and primary care the respondents felt that they had better support from these. This shows encouraging support from these services locally, with a much higher percentage of practices feeling better supported by these services, than secondary care services.

Limitations of the study

As this was a postal survey, this study could only examine a limited number of aspects of diabetes in general practice. It also did not address the issues of standards of care in general practice.

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