Attendance failures in diabetes clinics

G Gill, L Owens

Abstract

We have examined the problem of default from diabetes clinics over a 12 month period at our Diabetes Centre. Of 7,015 appointments 1,228 (17.5%) patients did not attend, and 165 (2.4%) cancelled. There was no seasonal variation and default rates were lower for 'special' clinics ($p<0.01$). The overall default rate of 20% gives cause for concern, and demands attempts to define reasons for default and to improve attendance.

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Key words

diabetes mellitus; attendance, compliance; default

Diabetes Centre, Walton Hospital, Liverpool, UK
Geoffrey Gill MD FRCP DTM&H, *Senior Lecturer/ Consultant Physician*
Lynne Owens, *Clinic Secretary*

Correspondence to: Dr G Gill, Diabetes Centre, Walton Hospital, Liverpool L9 1AE, UK

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Introduction

Substantial numbers of patients fail to keep appointments for hospital clinics[1,2]. This includes diabetes clinics[3–5], and the problem here is of special importance as defaulters from diabetes clinics suffer greater morbidity than those who attend regularly[3,4,6]. In view of this, we studied the problem in our diabetes service in North Liverpool over a 12 month period.

Methods

The study was performed prospectively at the Walton Hospital Diabetes Centre in Liverpool, UK, from August 1995 to July 1996. Each week there were four routine diabetes clinics and four 'special' diabetes clinics (new referrals, foot problems, antenatal and young persons). At each clinic the clerk/receptionist recorded who had cancelled and who did not attend without notice. Data was recorded monthly by the Diabetes Centre secretary. Statistical analysis when appropriate was by Chi-squared tests with Yates' correction.

Table 1. 'Failure to attend' rates, August 1995 to July 1996

1. Routine diabetes clinics	**(n= 5237)**
DNA	956 (18.2%)
Cancelled	75 (1.4%)
Total	1031 (19.6%)
2. Special diabetes clinics	**(n= 1778)**
DNA	272 (15.3%)
Cancelled	90 (5.1%)
Total	362 (20.4%)
3. Total clinic attendances	**(n= 7015)**
DNA	1228 (17.5%)
Cancelled	165 (2.4%)
Total	1393 (19.9%)

Notes
1. DNA = Did not attend without notice
2. The DNA rate for routine clinics (18.2%) was significantly higher than for special clinics (15.3%), $p<0.01$. This was especially so if the Young Person's Clinic (with its very high DNA rate) was removed — (18.2% *vs* 11.7%, $p<0.0001$)

Results

Overall failure to attend rates

There were 7,015 booked attendances during the 12 months: 165 (2.4%) cancelled their appointment and 1,228 (17.5%) did not attend without notice ('DNA') — a total of 19.9% (*Table 1*). Separate analysis of routine and special clinics gave similar total rates (19.6% and 20.4%).

Special diabetes clinics

There was wide variation in DNA rates, ranging from 3.9% for the Foot Clinic to 40.3% for the Young Person's Clinic (*Table 2*). Cancellation rates were generally low (0.4–3.5%), except for the Antenatal Clinic (9.7%). The DNA rate (excluding cancellations) was lower for special compared with routine clinics (15.3% *vs* 18.2%, $p<0.01$).

Seasonal variations

There was no clear seasonal pattern, and DNA rates for the four quarters of the year (18.3%, 18.1%, 19.3%, 17.1%) showed no significant differences.

Discussion

Simmons and colleagues[2] reported a DNA rate in a general medical clinic of 16% for new referrals (21% if patients had previously been inpatients). Verbov reported a mean 22% DNA rate from his dermatology clinic[1]. With regard to diabetes clinics, Lloyd and colleagues found that 127 out of 715 patients over a six month period failed to keep appointments (18.5%)[5]. Our figure is thus similar to other reported DNA rates.

These 'overall' figures may exaggerate the problem, as probably far fewer patients default permanently or for prolonged periods. Two studies suggest lower 'actual' default rates (patients who DNA and who do not subsequently return) from diabetes clinics: 4% per year in Wolverhampton (from 1971–81)[3], and 5% over a 16 month period (1979–80) in London[7]. Even so, high default rates of any sort make for inefficient outpatient care and difficulty in organising clinic appointment times.

Interestingly, our figures show no seasonal trend in DNA rates — for example, it might have been expected that rates would be higher during summer holiday periods but this does not seem to be so. Our 'special'

Table 2. Special diabetes clinics. Attendances August 1995 to July 1996

	Bookings	Cancelled	DNA	Total
Antenatal Clinic	774	75 (9.7%)	110 (14.2%)	185 (23.9%)
New Diabetic Patients Clinic	496	2 (0.4%)	60 (12.1%)	62 (12.5%)
Foot Clinic	282	10 (3.5%)	11 (3.9%)*	21 (7.4%)
Young Person's Clinic	226	3 (1.3%)	91 (40.3%)	94 (41.6%)

Notes
1. DNA = Did not attend without notice
2. The Foot Clinic DNA rate* was significantly lower than the other clinic rates ($p<0.0001$ for Young Person's and Antenatal, and $p<0.0005$ for New Patients). The Young Persons Clinic DNA rate was significantly higher han all the others ($p<0.0005$)

Key points

- *On average, 15.3% of bookings over a 12 month period did not attend the special diabetes clinic at the hospital without notice, and a further 2.4% cancelled their apointment.*
- *The diabetic foot clinic has the lowest default rate (4%) primarily because of frequent attendance intervals and perceived seriousness of the problem.*
- *Default was high from the young person's diabetic clinic, partly because of adolescent compliance problems and partly because of an active recall system which tends to selectively recall those likely to default again in the future.*
- *High default rates make for inefficient outpatient care and difficulty in organising clinic appointment times.*
- *The problem of diabetes clinic default is important and deserves greater attention.*

diabetes clinics had a significantly lower default rate than the routine clinic (though still high at 15.3%). The Diabetic Foot Clinic (DNA rate 4%) had by far the lowest default rate, probably because of the frequency of appointments (usually two-weekly), and possibly also the perceived seriousness of the disorder and fear of amputation. The high DNA rate (40%) from the Young Person's Diabetes Clinic is not unexpected, as difficulties of care and follow-up of adolescent diabetic patients is well known[8]. Even so, this rate is probably artificially exaggerated: we have a particularly active recall system for young patients involving phone contact and/or visits from diabetes specialist nurses. This is likely to select poor attenders back into the system, only to continue to default later.

Why do patients fail to keep diabetes clinic appointments? In the Bristol study of Lloyd *et al.*[5] (essentially of short-term default — less than seven months) most patients gave their DNA reasons as being away from home, being ill at the time, attending their general practitioner (GP) instead, or simply forgetting. Archibald and Gill[4] investigated longer-term defaulters (mean lapse 26 months). Here, reasons were usually concerned with clinic dissatisfaction (too crowded, waiting too long, not seeing consultant etc), though getting time off work and transport problems were also mentioned.

The problem of diabetes clinic default is important and deserves greater attention. Current rates are not consistent with efficient clinic organisation or long-term diabetes care.

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