

Development and audit of a home clinic service

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Introduction

In 1991, a group of infirm and vulnerable diabetic patients was identified as gaining little or no benefit from attending hospital diabetes clinic appointments. Secondary care input was required by these patients, but was not always helpful at the time of the appointment. Each of these patients was then assigned to a diabetes specialist nurse, who visited the patients and carers at home to assess care needs and arrange regular follow-up according to a structured protocol. From this, the concept of the 'home clinic service' evolved.

In Hull, diabetes specialist nurses (DSNs) regularly visit patients within their own home to assess and discuss their diabetes care and continuing education, but increasing workloads have led to a reduction in the number of such visits.

Equity in the provision of care must be the principal aim of any diabetes service. Yet patients with special needs, i.e. disability, infirmity or psychological problems, often find hospital clinic visits difficult and traumatic. Absence of the carers and patient records can result in poor quality consultations that are of little or no value to either party.

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

Figure 1. Diabetes mellitus is one of the major chronic disorders of our growing elderly population

Aims of the home care clinic

The home clinic service aims:

- To provide secondary care input in an appropriate setting
- To improve communication and education for carers
- To ensure the provision of structured care, including annual review checks.

Why do we need the home clinic service?

Diabetes mellitus is one of the major chronic disorders of our growing elderly population (Figure 1). Until recently, however, little attention had been paid to the special needs of older and/or disabled patients.

Many of the factors leading to poor quality consultations within the hospital setting in elderly diabetic patients are also present in elderly patients without diabetes and younger patients who share similar disabilities. Such factors include:

- Multiple health problems
- Visual and /or hearing impairment
- Immobility, frequently necessitating hospital transport, which prolongs the visit
- Poor communication: e.g. the patient with dementia, where the carer is unable to accompany the patient to the clinic
- Lack of documentation: e.g. medication and any monitoring results which would aid the consultation. These are mainly patients from residential and nursing

ARTICLE POINTS

1 Equity in the provision of care must be the principal aim of any diabetes service.

2 Diabetes mellitus is one of the major chronic diseases in our growing elderly population.

3 The home clinic service provides a high quality, cost-effective service for a disadvantaged group of people.

4 A need for a more structured educational programme to enhance the delivery of care has been identified.

5 One of the main aims of the home clinic service is to deliver secondary care into the primary setting.

KEY WORDS

- Structured diabetes care
- Equity
- Home clinic service
- Education

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PAGE POINTS

1 The DSN visits each patient every 6 months, following a structured protocol.

2 Any problems identified are fully documented on the follow-up form.

3 Copies of the follow-up form are sent to the consultant and GP, and entered into the patient's medical records.

4 The majority of patients registered with the home clinic service are aged 75 years or over.

Patient or carer informed of:

- Appointment time
- Need to provide first morning urine specimen

Measurements performed/samples collected:

- Height
- Weight
- Blood pressure
- Urine for albumin/microalbuminuria screening
- Capillary blood for HbA_{1c}

Documentation of:

- Care arrangements
- Date of last dietary assessment
- Chiropody care – if any
- Blood glucose or urine monitoring – who performs

Foot examination:

Performed according to protocol agreed during training by the DSNs, chiropodists and consultants

Eye care:

If not attending the eye clinic:

Date of last eye screening documented. If due, ophthalmic optician consultation arranged at previous optician or domiciliary visit (free of charge) as appropriate

If attending the hospital:

Check that appointment has been arranged – if lost to follow-up, discuss criteria for re-referral with consultant and GP

Action list for further problems identified

Plan next date of visit with patient/carer

Prepare report for consultant/GP/hospital notes

Figure 2. Protocol for the home clinic service.

homes or who have district nurse input. Tong (1994) highlighted problems within the residential/nursing home system, in that their diabetic population was relatively neglected by healthcare professionals, compared with diabetic patients living alone. This may reflect a perceived vulnerability of those living alone, compared with the apparent cosseted care provided by the 'homes'. Unfortunately, both knowledge and regular visits from medical staff in the residential home were found to be lacking (Richmond, 1994).

In Hull, we are unable to adopt the full multidisciplinary team approach suggested by Tong (1994). However, following a home clinic visit, the DSN can easily liaise with any member of the diabetes team as each is accommodated within the Diabetes Centre in Hull.

Documentation for the home clinic service

The DSN visits each patient at regular 6-monthly intervals, following a structured protocol (Figure 2). This is designed to ensure that the screening, educational and care needs of each individual are met.

After each visit a report is completed (Figure 3). Any problems identified during the visit or following comparison with the patient's previous records are fully documented on this form and copies are forwarded to the relevant consultant and GP, and to the patient's medical records. Any actions and outcomes are then recorded in the patient's medical notes.

Audit of the home clinic service

There are currently 43 patients (32 female, 11 male) registered with the home clinic

service: 17 live in their own homes, four are totally independent with their diabetes, and 13 have a significant other involved in providing some or all of their care. The remaining patients are cared for in either residential or nursing home settings. The number of patients registered with the home clinic is rapidly increasing, the most recent influx being received from one of the consultants for the elderly.

Figure 4 shows the demographic features of patients currently registered with the home clinic service. It can be seen that the majority are aged 75 years of age or older.

Table 1 shows the treatment methods used in these patients.

Many of the patients have long-term complications, i.e. retinopathy, nephropathy, neuropathy or other pathologies, e.g. coronary heart disease, peripheral vascular disease and hypothyroidism. Fifteen patients have some form of mental illness such as depression or cognitive impairment.

Cost comparisons

We feel that this is a cost-effective service (Table 2). The home clinic visit allows the DSN to provide structured diabetes care at one visit, whereas an appointment in the hospital clinic resulted in a poor consultation which required an extra home visit by the DSN to obtain necessary information.

Outcomes

We were able to match 13 pairs of pre-home clinic glycated haemoglobin (HbA_{1c}) results (8.5%±0.7 SEM) with current results (7.5%±0.4 SEM) (P=0.097). These show a trend towards improvement in glycaemic control; although this is not statistically significant (indicating that a larger sample is required to allow a conclusion), there was no deterioration. We anticipate that glycaemic control will improve, for the following reasons:

- Increased educational input during a home clinic visit by the DSN, involving not only the patients but also the carers and relatives
- Up-to-date information can be gathered from both patient and carers, as they are likely to be more relaxed within their own environment
- The home clinic visit allows a general

Diet alone	6
Oral hypoglycaemics	16
Adjunctive therapy (oral hypoglycaemics and insulin)	3
Insulin	18

Name:		Unit no:
BP:	BM:	HbA _{1c} :
Wt:	Ht:	BMI:
Urinalysis:		
Nutrition:		
Dietitian:		
Foot examination:		Left Right
Pulses present – dorsal pedis		Yes/no Yes/no
– posterior tibial		Yes/no Yes/no
Responsive to sharps		Yes/no Yes/no
Responsive to light touch		Yes/no Yes/no
Colour	Normal Red Blue	Normal Red Blue
Temperature	Normal Hot Cold	Normal Hot Cold
Condition of feet:		
Attending chiropody:		
Eye examination:		
Current medication:		
Home monitoring results:		
DSN's comments (e.g. education and plan of action):		
Planned date of next home clinic review:		
Diabetes Specialist Nurse:		Date:

Figure 3. Diabetes home clinic service follow-up.

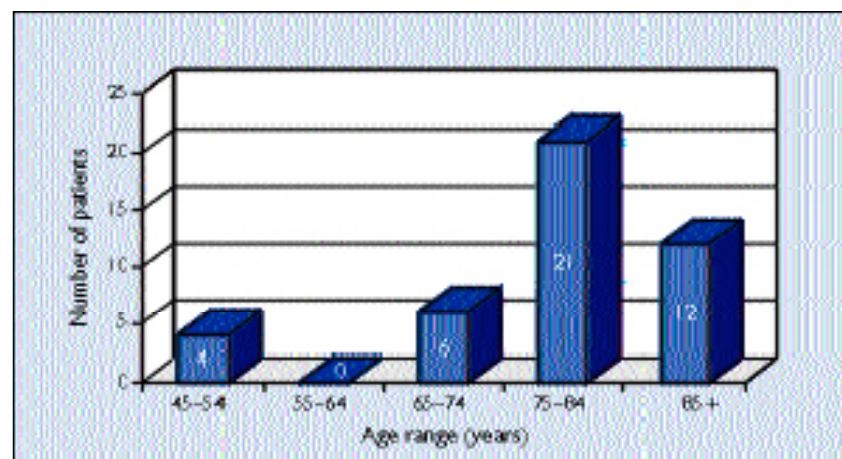


Figure 4. Demographic features of the present home clinic service.

Table 2. Estimated cost comparisons between home and hospital clinic visits.

	Home clinic visit	Hospital clinic visit
Travel	£6.90 (approx 14-mile journey — standard car user)	£36.56 (return trip — Humberside Ambulance Service NHS Trust)
Time	£16.60 (Nurse time — 90 min including 30 min travel)	£8.00 (Doctor's time — 15 min)
Overheads	£0.00 (clinic bag — no cost)	Unable to estimate cost (Clinic staff, heating, lighting)
Total	£23.50	£44.56

dietary assessment to be made through observation of the patient's food supply and discussion with the patient.

Advantages of the service

- Convenient for the patient
- Allows structured review
- Enables liaison with other community nurses, leading to enhanced care
- Reduces waiting times in the hospital clinic
- Patients more relaxed in own environment
- Nurse able to obtain all the necessary information in one visit
- Continuing education and support
- Continuity of care
- Involvement of family and carers
- Cost-effective

Disadvantages of the service

- Increased time commitment from the DSN
- Eye screening has to be arranged as an extra appointment
- There is no review of medical problems.

Future initiatives

Expansion of service to include primary care patients
 Some local GPs have expressed an interest in the home clinic service as a means of providing structured diabetes care to patients who are unable to visit the surgery.
 Gadsby (1994) found that 15% of the diabetic patients in his own practice had not received an annual review. The main groups of patients who were not receiving reviews were the housebound and patients in residential and nursing homes.

At present, in Hull, the majority of practice nurses do not visit patients in the home, and the district nurses are unable to fulfil this role owing to increased work demands from the hospital. It may be that there is a need to develop a trained nurse practitioner or specialist nurse to deliver structured diabetes care within the primary care setting for this group of patients.

Education

We believe that diabetes education is very important, and following close liaison with the residential and nursing homes, have identified this as a priority. We are in the process of organising structured education; as we do not want cost to be a barrier, we have made a unit decision that there will be no charge to the private sector for these sessions. The district service is funded by the Royal Hull Hospital Trust, who decided that a charge for these sessions would be counterproductive.

The diabetes register (diabetes management system)

In the Hull area, there are currently 7,600 patients on the diabetes register, of whom 3,100 receive primary care and 4,500 receive secondary care.

We will soon be able to identify more accurately those patients within the primary and secondary care settings who are not receiving structured diabetes care. The register programme, with its ability to access information easily, will enable us to carry out further audit of the home clinic service.

Conclusions

We believe that the diabetes home clinic service provides a high quality, cost-effective service for a disadvantaged group of patients. It is hoped that the development of this service into primary care will meet the care needs of housebound and residential home patients. Resources for this project are currently under review. ■

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 Richmond J (1994) Diabetes survey in residential homes for the elderly in the Stockport area. *Diabetic Nursing* 18: 4-6
 Gadsby R (1994) Care of people with diabetes who are housebound or in nursing or residential homes. *Diabetes in General Practice* 4(3): 30-31

PAGE POINTS

1 There are both advantages and disadvantages to the home clinic service.

2 Some GPs are interested in using the home clinic service to provide structured diabetes care for patients who are unable to visit the surgery.

3 The provision of structured diabetes education is seen as a priority.

4 To maximise the uptake of diabetes education, the private sector will not be charged for education sessions.

5 Use of the diabetes register will enable further audit of the home clinic service.