Evidence suggests that the health status of patients attending warfarin clinics is greatly enhanced by community-based services, write Brendan Clune, Kilian McGrogan and Anne O’Connor

THE SOUTH INNER CITY OF DUBLIN PARTNERSHIP in Primary Care (SICP) is a partnership between 29 local GP practices (52 GPs), which serve a population of approximately 200,000 people and the South Western Area Health Board. The partnership was established in 1998 in order to fill an anticipated service need following the closure of the AMNCH Hospital Group and also to enhance the delivery of primary care within the south inner city area.

Background

In 1998, a need for local, community-based anticoagulation clinics was identified when it became apparent that a large number of patients attending the warfarin clinic at Tallaght Hospital had south inner city addresses. An increase in the number of people commencing warfarin therapy due to its use in the management of atrial fibrillation was also evident.

Large numbers of patients were placing a heavy workload on hospital-based clinics at a time when GP-led clinics were being shown to be at least as effective as hospital clinics in achieving good control of anticoagulation.1-5

From this starting point a subcommittee was formed to include general practitioners, a consultant cardiologist, a consultant haematologist and a pharmacist. Nursing and laboratory staff involved in anticoagulation control at St James’s Hospital were also actively involved in the establishment of the project.

The initial aim was to develop a community-based service that would allow for the development of a standard approach to community-based monitoring of anticoagulation therapy. Protocols and guidelines for the provision of this service were drawn up to include referrals, prescribing regimen, patient education and external quality control. It was decided that the clinics would operate initially on a pilot basis and be subject to a thorough review after a two-year period.

In 1999, when the clinics commenced, 21 practices were participating in SICP and it was felt that three practices could provide an inter-referral service to all practices in the Partnership. CoaguChek Near Patient Testing Kits were obtained for the three practices. The project subscribed to The “UK National External Quality Assessment Scheme (NEQUAS) for Blood Coagulation” in order to establish and maintain a high standard of performance and practice. The laboratory in St James’s Hospital provided ongoing quality assurance monitoring. Birmingham Anticoagulant Program-Primary Care (BAP PC) software was provided to each of the clinics.

Current service provision

The clinics have now been in operation for three years. In January 2002, two additional clinics were commenced to accommodate patients whose GPs had recently joined SICP.

The clinics operate as a ‘one-stop shop’ where patients have their INR checked, their warfarin prescribed and their general knowledge and compliance checked in one visit. A senior staff nurse is employed to work in four of the clinics with the GPs and to liaise with the practice nurse who runs the fifth clinic, thereby ensuring continuity of standards of practice.

Patients are booked in for 15-minute appointments to allow adequate time for education.

Advantages

The provision of a community-based, GP-led service has advantages for the patient, other GPs and the hospital.

By accessing this service, the patient benefits from:

- Regular clinic monitoring
- Patient education
- Involvement in the management of therapy
- Accessibility
- Minimal waiting times.

These factors, along with the opportunity to build a personal relationship with the nurse and GP, aid compliance and improve patient satisfaction.

Other GPs benefit from having a service provided locally for their patients by someone they know. For the hospital

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<th>Pre-GP-Led Care (% Time)</th>
<th>Post-GP-Led Care (% Time)</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Range</td>
<td>52%</td>
<td>65%</td>
<td>Just statistically significant</td>
</tr>
<tr>
<td>Out of Range</td>
<td>33%</td>
<td>16%</td>
<td>Highly Significant</td>
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<tr>
<td>Interval Time</td>
<td>34 Days</td>
<td>24 Days</td>
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service, advantages lie in the clear pathway of care from hospital to community.

Already under pressure from increasing numbers of patients, the hospital team have direct access to community clinics that can provide care to relatively stable patients. Hospital and community staff meet on a regular basis to review protocols and discuss issues pertaining to the further development of the service. Should serious problems arise with any patient attending the community service, a fast track referral ensures the patient is seen promptly in the hospital clinic.

Criticism of the service could be directed at the cost of near patient testing compared to venous sample testing in a hospital service (€4.00/test excluding staff costs and clinic overheads versus €5.88 inclusive of all costs) and the cost of GP and nurse time to run such clinics.

These costs, however, are negligible compared to the cost to the patient of attending a hospital service, ie. the cost of taking either a half day or full day off work to attend a service or accompany someone to a hospital-based service, the cost of transport to and from the hospital and even the ever-increasing cost of car park charges.

Evaluation

In depth research of the project was carried out in 2001. A qualitative study completed by SAHRU (Department of Community Health and General Practice, TCD) compared INR levels of a group of patients for whom data was available before and subsequent to their attendance at the SICP clinics:

- Pre-GP-led care – whilst attending the hospital service
- Post-GP-led care – whilst attending the GP-led clinic.

The selection of comparison criteria was based on relevant literature with the three main criteria identified as:

- Proportion of patient time spent within target INR range for pre- and post-GP-led care. (ie. good control)
- Proportion of patient time spent below an INR of 2 and above 5 for pre- and post-GP-led care. (ie. poor control)
- Mean interval time between INR measurements for pre- and post-GP-led care.

Results

For results see Table 1. This study also demonstrated that in the GP-led clinics, performance improved with time and better performance outcomes for patients were evident during their period of treatment at the GP-led clinics.

Patient satisfaction

A qualitative patient satisfaction study was also carried out by the Department of General Practice, RCSI in 2001. In this study 10% of patients selected randomly from the three clinics underwent a semi-structured interview with open-ended questions relating to behaviour, opinions, knowledge of their illness and the treatment they have received whilst attending the clinic.

Patients expressed satisfaction that they are seen promptly and all aspects of their care dealt with efficiently. They also felt that they are better enabled to cope with their illness. Certain factors within the hospital clinic were seen to have a negative impact on patient’s confidence in coping with their illness, ie. waiting times and having to travel.

Positive outcome of localisation

At present 29 practices participate in SICP and five inter-referral, community anticoagulation clinics are operational.

At present, there are 125 patients enrolled with the clinics but work is under way with St James’s Hospital to review those patients attending the hospital-based clinic who would be suitable to attend the SICP clinics.

It is envisaged that up to 300 patients could be accommodated in the five community clinics. It is also estimated that approximately 1,150 hospital visits are prevented each year by the current patient group (125) attending GP-led clinics.

There is evidence that the health status of those attending has been greatly enhanced by the localisation of this service. The studies carried out on this initiative suggest this way of working as a practical model for GP-led near patient testing warfarin clinics.

By listening to the patients as ‘experts’ in the area, their needs are being addressed through the provision of quality based, accessible care.

Brendan Clune is in practice in Ranelagh and Kilian McGroghan is in practice at Mercer’s Medical Centre, Dublin and both are part of the South Inner City of Dublin Partnership in Primary Care. Anne O’Connor is project manager at the SICP.

References

4. Newcastle anticoagulation study group. Effectiveness of anticoagulation among patients discharged from hospital on warfarin. MJA 1998 (Sept); 169:7

Further information about this or any other initiative of the South Inner City of Dublin Partnership in Primary Care can be obtained by contacting Anne O’Connor, Tel: 01-454 5385; or Email anneoconnor.sicp@swahb.ie