The Newcastle Clozapine Clinic

Sandra L. Tough, Austin Wilcock, Sue White and Fuad Hassanyeh

Over the six years since the introduction of clozapine to the UK, the number of people prescribed this medication and living in the community has steadily increased. Coordination of blood monitoring and dispensing of clozapine to people dispersed throughout a district can be problematic. In Newcastle-upon-Tyne a steering group of healthcare professionals was established to address this situation. The outcome was the establishment of the Newcastle Clozapine Clinic. This paper describes the development of this service, which has improved administrative efficiency and given the opportunity to develop associated new services for people in the city with enduring mental health problems.

The introduction of the atypical antipsychotic agent clozapine to the UK in 1990 added a powerful new treatment in the management of schizophrenia (Kane *et al*, 1988; Meltzer *et al*, 1989). This has contributed to a number of previously hospitalised patients being discharged into the community. Unfortunately, clozapine is a potentially toxic drug with neutropenia occurring in 4% of cases and agranulocytosis in 0.8% (Clozaril Patient Monitoring Service, 1995). This effect is not dose-related and is more likely to occur early in treatment. To ensure early identification of neutropenia, strict protocols for regular blood testing and dispensing of prescriptions are mandatory for all patients on clozapine. This is coordinated by the Clozaril Patient Monitoring Service (CPMS) organised by Sandoz Pharmaceuticals and by local pharmacies registered with the Monitoring Service.

In Newcastle, prescribing and supplying clozapine was at first fairly uncomplicated as only a few in-patients were prescribed the drug and arrangements were made to suit patients and staff. As the number of people taking clozapine grew, and with increasing numbers being discharged to live in the community, the organisational problems for the psychiatrist, the community psychiatric nurse (CPN) and the pharmacist, let alone the patient, became substantial. Arrangements initially continued to be made on an individual basis. The first move towards a more coordinated service was the recommendation that blood sampling be done on a specific day, allowing the pharmacy to have a regular 'dispensing day' for clozapine.

Before January 1996, the situation in Newcastle was that prescriptions of clozapine and associated blood monitoring were undertaken by all psychiatric teams in the city. These teams were geographically dispersed and there was no coordination between them, although dispensing of clozapine was undertaken centrally by pharmacy. Protocols and organisation varied from team to team, and was sometimes on an *ad hoc* basis. Blood monitoring was carried out variously at community mental health centres, out-patient clinics, and even on in-patient wards, as well as on occasion at patients' homes. Some blood sampling was done by junior doctors, others by consultant psychiatrists, some by a phlebotomist, and a few by CPNs trained in venepuncture. Supplies of haematology forms and packs often ran out, with staff urgently seeking supplies from other teams or units.

In view of the lack of clear protocols, people could 'fall through the net'. On these occasions pharmacy, with its centrally organised dispensing service for clozapine, acted as a fail-safe mechanism. However, lines of communication between the prescribing doctor, the keyworker, pharmacy and the patient were not always clear, and staff commented on the disproportionate time spent on organisational aspects of clozapine administration.

The aim of the newly established clinic was to maintain the advantages of the old system (that is, local accessibility, continuity of care, and good links with local community mental health teams) while enhancing and improving the service by:

(a) introducing a clear protocol for the administration and monitoring of clozapine;
(b) developing good, clear lines of communication;
(c) enhancing administrative efficiency;
(d) providing a relaxed, welcoming environment for patients attending the clinic; and
(e) the addition of new user-led services and initiatives.

To this end a Steering Group was set up with representatives of medical staff, community nursing staff, pharmacy and management.

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Development of the Newcastle Clozapine Clinic

The Steering Group first met in July 1995 and set a time-scale of six months for the establishment of the clinic. Having accepted the objectives outlined above, information was gathered on other clozapine clinics, including Cambridge and Burnley, which were then visited.

Initial plans were to provide a locally based service with clinics sited in each of the three sectors of the city (East, West and North). These, however, had to be changed when it became clear that it would not prove possible to provide the quality of service envisaged spread out over three sites from within available resources. By November 1995 a single central site for the clinic was selected, in the city's Royal Victoria Infirmary.

The Steering Group also addressed the issues of identifying staff and the provision of appropriate training, including venepuncture. An operational protocol for the Clozapine Clinic was developed. As well as giving information on the organisation of the clinic, this detailed the referral process (including referral forms), the procedure for managing clinic non-attendance and for arranging urgent (local) blood samples.

It also clarified lines of communication and clinical responsibility between the patient, the keyworker and responsible consultant, the Clozapine Clinic and the CPMS.

Operation of the Newcastle Clozapine Clinic

The Steering Group achieved its objectives within the proposed time-scale. The Newcastle Clozapine Clinic was officially launched in December 1995. It was widely publicised within the Newcastle Mental Health Services and the operational protocol was distributed to all referring teams.

The first clinic session was held in January 1996. The clinic takes place every Tuesday, and the dispensing of clozapine every Thursday. The service is managed by the Senior Nurse in Community Rehabilitation. It is coordinated by a CPN (G grade) from the community rehabilitation team, and facilitated by another CPN (F grade) from the same team, with the help of a support worker. Backup is provided by other CPNs in rehabilitation who are trained in venepuncture and familiar with the organisation of the clinic. Medical liaison is provided by the Consultant in Rehabilitation Psychiatry. A pharmacist with special responsibility for dispensing clozapine retains close links with the clinic. In addition, a volunteer driver and car are available to help clinic attenders with transport.

The clinic aims to be as informal and 'non-clinical' as possible in order to encourage compliance and to increase user involvement in the future development of the clinic. To this end, a large, informally furnished room is provided where users and their carers can meet one another and clinic staff in a relaxed setting. Tea and coffee are provided and the 'social and drop-in' aspect of the clinic is seen as central to its role.

It is planned to encourage the clinic attenders to use this space (as well as staff time) in a way which addresses their own needs. Clinic staff, with the support of the rehabilitation psychology service, are also developing more structured groups for users to share their experiences with one another. They will look at the opening-out of horizons in a patient's life which had been inaccessible prior to the improvement in their social and cognitive functioning. The needs of families and carers are also recognised, and the clinic expects to have a role in providing both formal and informal support.

Initial progress of the Newcastle Clozapine Clinic

At the time of the first clinic session in January 1996, 60 patients across Newcastle were being prescribed clozapine, 34 on an out-patient basis. By April 1996, 80% of all patients prescribed clozapine and living in the community were attending the Clozapine Clinic. It is hoped to enhance these figures further over the coming months.

There have been no major difficulties in implementing the operational protocol. Communication between clinic and team workers has operated efficiently. Attendance rates have been highly encouraging and the help of the volunteer driver service has proved invaluable. A health information and 'awareness' group is getting under way. A monthly group providing support for families and carers is about to start. In keeping with the clinic's philosophy, the precise format and aims of the group will be determined by its members.

During the first three months of its existence the Newcastle Clozapine Clinic has made a good start towards fulfilling the initial criteria set by the Steering Group. The continuing success of the clinic in meeting these criteria will be closely audited.

Transition to the new service has been smooth for both patients and staff. It is our hope that this change in service provision prompted by the need to improve efficiency, provided for from within existing funding, will lead to an improvement in the quality of service for people with enduring mental health problems in the city of Newcastle-upon-Tyne.

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*Sandra L. Tough, *formerly Senior Registrar, Special Care and Rehabilitation Services, St Nicholas Hospital, Newcastle-upon-Tyne, currently Consultant in Community Psychiatric Rehabilitation, Tynemouth Victoria Jubilee Infirmary, Hawkeys Lane, North Shields, Tyne and Wear NE29 0SF*; Austin Wilcock, *Senior Nurse, St Nicholas Hospital, Newcastle-upon-Tyne*; Sue White, *Senior Pharmacist, Newcastle General Hospital, Newcastle-upon-Tyne; and* Fuad Hassanyeh, *Consultant Psychiatrist, St Nicholas Hospital, Newcastle-upon-Tyne*

*Correspondence

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