Quality in Primary Care 2007;15:33–6

Research paper

Evaluation of the primary/secondary care interface in relation to a primary care rheumatology service

Sarah Critchley RGN BA(hons) MSc
Rheumatology Specialist Nurse

Elaine Ball RGN Cert Ed BA(hons) MA PhD
Lecturer in Adult Nursing

The Royal Oldham Hospital, Oldham, UK

ABSTRACT

Objective The rheumatology department at The Royal Oldham Hospital developed a primary care service aimed at bridging the gap between primary and secondary care for patients with potential rheumatological conditions, and this was given the name rheumatology Tier 2. The objective of this study was to evaluate this primary care rheumatology service (Tier 2) in order to assess its validity, patient satisfaction and effectiveness.

Design Ten patients participated in individual semi-structured interviews. Three GPs were interviewed individually, and two GPs formed a focus group. Thematic analysis was used to interpret the findings.

Setting Patients were recruited from seven consecutive rheumatology Tier 2 clinics. GPs were recruited from Oldham Primary Care Trust (PCT) as this was the main source of patient referrals for the service.

Results The key findings were in relation to the integration of primary healthcare and hospital services, i.e. the primary/secondary care interface. This highlighted the importance of early assessment, diagnosis and treatment of patients with suspected inflammatory arthritis.

Conclusion Early diagnosis and treatment with disease-modifying anti-rheumatic drugs improves patients' outcomes. The rheumatology Tier 2 service built on this evidence and provided a rapid assessment and referral to secondary care for those patients with suspected inflammatory arthritis.

Keywords: primary care development, primary/secondary care interface, rheumatology, Tier 2 service

How this fits in with quality in primary care

What do we know?
Early assessment, diagnosis and treatment of patients with suspected inflammatory arthritis has been shown to improve outcomes for these patients.

What does this paper add?
Evaluation of a new rheumatology service showed that patients and general practitioners felt that it provided a rapid assessment and referral to secondary care for those patients with suspected inflammatory arthritis.

Introduction

Traditionally, patients with suspected inflammatory arthritis are referred directly from their general practitioner (GP) to a consultant in secondary care. However, innovations in practice together with recent government policies are proliferating at the primary/secondary care interface, affecting referral pathways and resource use.[1] The principal motive for such reorganisation is to move away from reactive care based in acute systems, towards a systematic patient-centred approach rooted in primary care.

Early diagnosis and treatment of inflammatory arthritis with disease-modifying anti-rheumatic drugs (DMARDs) has been shown to improve patient outcomes.[2] A large body of published material suggests that DMARDs should be initiated within 3 months of disease onset.[3,4] In current practice the time from symptom onset to commencement of DMARDs is at best six months.[5] It is evident that considerable resources are required to enable primary and secondary care services to deliver DMARDs within the recommended time scale.

Background

Research has shown that rheumatology services can be managed safely within a primary care setting, notwithstanding appropriate support from secondary care.[6] There is evidence that patients seen in a primary care setting are managed relatively similarly and have the same treatment outcomes to patients who are seen and treated in secondary care.[7] Based on these findings, the emergence of new initiatives to manage the demand for rheumatological disorders occurs largely at the primary/secondary care interface, rather than solely within primary care.

In May 2003, the rheumatology team at The Royal Oldham Hospital undertook a three-month audit of new patient referrals. From the initial audit findings it was estimated that approximately 40% of the new patient referrals could be seen and treated in primary care by a multidisciplinary team. As part of ongoing developments in the management of chronically ill patients, Oldham PCT established a primary care-based rheumatology service (named Tier 2). The aim of the service was to improve care pathways for patients and reduce waiting times for secondary care rheumatology patients.

This study was a nine-month evaluation of the rheumatology Tier 2 service; it was commenced 12 months after the service began. Because this type of service was new to the specialty of rheumatology, there was a desire from the outset to combine best practice with innovation and this was recently recognised when the British Society of Rheumatology awarded first place to this service. The award 'Innovation in Rheumatology' was designed to highlight innovation and excellence that has benefited rheumatology medicine.

Methods

A qualitative descriptive analysis was used to evaluate patient and GP responses to their experience of the Tier 2 service. The data were analysed and categorised by frequency, which allowed theories to be developed offering insight and enhanced understanding of the data, and provided a meaningful guide of action to the research situation.[8,9]

It was hoped that the service users' perspective would provide a patient-led direction, highlight areas for development and improvement, and most importantly, support evidence-based research and confirm that the rheumatology Tier 2 service was right for this patient group. The GP sample provided a different perspective on the service users' experience – it was important to determine if the service offered a quicker response rate of treatment, improved patient outcomes, and changed rheumatology delivery for the better.

All patients who had a rheumatology Tier 2 appointment on seven consecutive clinic dates were sent an invitation letter, information sheet and reply slip inviting them to attend an interview lasting approximately 30 minutes and consisting of semi-structured questions, which referred to the rheumatology Tier 2 service and their evaluation of it. A total of 32 patient invitations were sent. Thirteen patients agreed to take part in this study. Non-responders were not sent reminders due to time constraints of the study. One patient was included in a pilot study and two patients withdrew from the study on the interview date due to prior commitments. The interview was conducted after the patient's rheumatology Tier 2 appointment in an NHS setting.

The GP sample was originally intended to form a focus group, and invitations were sent out via email as it was fast and, more importantly, ensured direct access to all of the GPs. To access the GP population for this study, all GPs in the Oldham PCT were emailed an invitation letter and the research protocol; two weeks later a reminder email was sent. Eighty-seven GPs were invited to attend the focus group session. The first six GPs who replied positively to the email were to be included in the focus group and the GPs were informed of this in their invitation. Two GPs agreed to attend the focus group on the date arranged, however, six GPs expressed an interest but could not attend, as it was difficult to organise a mutually agreeable time.

Due to the small number of participants for the GP focus group, it was decided to interview individual GPs, as they would be less constrained by a rigid time. The most expedient process to gain access for the individual interviews was to repeat the process of emailing the previous six GPs who could not attend the focus group due to time constraints. The email asked if they would consider being interviewed about their experiences of the rheumatology Tier 2 service on an individual basis at their own GP practice at a convenient time for them. Three of the six GPs replied positively to this invitation and were interviewed individually.

The setting for the GP focus group was a quiet, relaxed room in the education centre at The Royal Oldham Hospital. The individual GP interviews were held in private in the GP's own surgery.

Written informed consent was obtained from all participants. All interviews and the focus group were tape-recorded and transcribed. The data were stored in a locked filing cabinet in a locked office and were destroyed after the completion of the study.

Results

Before the Tier 2 service, patients had to wait up to 13 weeks for an initial assessment in secondary care. After introduction of the new service this was no longer the case; because of the rapid-assessment process, patients now had access to valuable medication sooner. DMARDs are generally effective, but they take up to 12 weeks before they exert a therapeutic effect; and this was another reason to prescribe them early.[2]

The difference between primary and secondary care in the delivery of rheumatological care was evident. The primary care service had more direct care pathways – patients were seen, treated and discharged with a plan of care, usually within four weeks of receiving the GP referral. The effectiveness of the service in terms of its ability to discharge patients was a crucial factor in the services' success. However, if patients had a suspected inflammatory disease, their investigations were carried out before they were referred on to secondary care. This meant that when they had a hospital consultation much of their disease management had started. Therefore as one GP observed, the Tier 2 service provided a bridge in the hiatus between early diagnosis and treatment:

> 'We don't want to leave it too late to refer if they are going to be rheumatoid because they need aggressive treatment but we don't want to send them in too early before it's clear as to what is going on.'

Given that 90% of patients with rheumatoid arthritis have some form of disability within two decades of onset,[10] early diagnosis and treatment is of paramount importance. Early diagnosis and treatment dramatically improve patients' long-term outcomes,[2] and findings showed that the Tier 2 service saw patients early on in the disease process and started DMARDs quickly. This was important also if the patient was to return to a productive way of life, and was certainly a consideration for the GPs:

> 'What is the final outcome for these individuals, does it really change their quality of life, do they stay in work and can they be a productive member of society?'

Healthcare resources are finite.[11] Therefore information about costs and effectiveness were essential when making decisions about the Tier 2 service. One consideration from a GP was that if primary care services are more cost-effective and treatment is offered in the community then financially the service is more viable. On the other hand, another GP observed that cost would be the same as the service was the same with only a different setting.

> 'Economically if it can be delivered much more speedily and the likelihood is that the cost to the NHS is going to be considerably less.'

In respect of setting, however, the patient findings showed that this change had the greatest impact:

> 'For some people it's probably less threatening than having to go to the hospital, you know it's more of a familiar sort of surrounding.'

Patients stated some concerns regarding attending a primary care rheumatology service, but there was a shift in opinion after their appointment where they expressed a preference for the primary care service instead of one based at the hospital. One explanation given for this change in opinion was the similarity of the assessment in primary care compared to secondary care:

> 'I mean the interview that I've had was very thorough and I wouldn't have thought it would have been any more thorough at the hospital.'

The development of the Tier 2 service helped both the patient and the healthcare professional to better define the patients' care pathway and ensure a quicker response of evidence-based care. The shift from secondary- to primary-based care in the treatment of rheumatology helped to respond to the local population's needs and provide a service that was as accessible as possible,[1] while being cost-effective at the same time.

Discussion

Findings revealed that GP and patient satisfaction was achieved. However, it would be unfair to provide this well-evaluated service if it were only for an interim period. Whether these services are sustainable over a long period of time remains to be seen, due to issues surrounding cost-effectiveness and continuing changes in healthcare politics. Yet, the general principle of moving chronically ill patients from secondary to a primary care setting reflects current changes in healthcare provision.

From the data findings, participants felt that the most effective way to deliver care for patients with potential rheumatological conditions was at the interface of primary/secondary care as provided by this new service. Careful consideration has been given to these findings, as they have the potential to impact significantly on chronic disease services. Further larger studies are needed in order to develop sustainable services for chronically ill patients.

Conclusion

Patients with suspected inflammatory arthritis require rapid assessment, diagnosis and treatment. The commencement of appropriate medication has been proven to slow down disease progression and maintains quality of life. Unfortunately, current rheumatology services struggle to provide treatment within a set time period, thus leaving patients without the required drug therapy. The rheumatology Tier 2 service has improved not only care pathways thus reducing inappropriate secondary care referrals but more importantly the speed of the initial assessment, diagnosis and treatment.

ETHICS COMMITTEE

Ethical approval was gained from Oldham Local Research Ethics Committee and The University of Salford.

REFERENCES

1 Department of Health. *Supporting People with Long Term Conditions. An NHS and social care model to support local innovation and integration*. London: HMSO, 2005.
2 Arthritis and Musculoskeletal Alliance. *Standards of Care for People with Musculoskeletal Conditions*. Available at: www.arma.uk.net (accessed 24 November 2006).
3 Quinn MA, Conaghan PG and Emery P. The therapeutic approach of early intervention for rheumatoid arthritis: what is the evidence? *Rheumatology* 2001;40:1211–20.
4 Hochberg MC. Early aggressive DMARD therapy: the key to slowing disease progression in rheumatoid arthritis. *Scandinavian Journal of Rheumatology* 1999;28:3–7.
5 Irvine S, Munro R and Porter D. Early referral, diagnosis and treatment of rheumatoid arthritis: evidence for a changing practice. *Annals of Rheumatic Disease* 1999;58:510–13.
6 Hewlett S, Mitchell K, Haynes J *et al*. Patient-initiated hospital follow-up for rheumatoid arthritis. *Rheumatology* 2000;29:990–7.
7 Hetthen J and Helliwell PS. A comparison between primary care-led rheumatology services and secondary care provision. *Rheumatology* 1999;38:1294–5.
8 Strauss A and Corbin J. *Basics of Qualitative Research: techniques and procedures for developing grounded theory* (2e). Thousand Oaks: Sage, 1998.
9 Artinian BA. Qualitative modes of inquiry. *Western Journal of Nursing Research* 1998;10:138–49.
10 Buckley CD. Science, medicine and the future. Treatment of rheumatoid arthritis. *British Medical Journal* 1997;315:236–8.
11 The University of York. *Cost Effectiveness Matters: The NHS Economic Evaluation Database*. 2002:6(1).

CONFLICTS OF INTEREST

None.

ADDRESS FOR CORRESPONDENCE

Sarah Critchley, Rheumatology Department, Outpatients B, The Royal Oldham Hospital, Rochdale Road, Oldham OL1 2JH, UK. Tel: +44 (0)161 295 7280; email: Sarah.Critchley@pat.nhs.uk

Received 18 July 2006
Accepted 8 November 2006