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## **Podiatry services for patients with arthritis: an unmet need**

Keith Rome, Jonathan Chapman, Anita E Williams, Peter Gow, Nicola Dalbeth

### **Abstract**

Foot problems are extremely common in patients with rheumatoid arthritis (RA). There is ample evidence that foot pain, either alone or as a comorbidity, contributes significantly to disability. Despite the high prevalence of foot disease in RA, this problem is often trivialised or underappreciated. The inequity in foot health provision for patients with rheumatic disorders in New Zealand has recently been highlighted. Expertise in dealing with foot problems is often limited among healthcare professionals, and it has been argued that better integration of podiatric services into rheumatology services would be beneficial. The aim of this paper is to highlight the major issues related to foot care for patients with arthritis and provide key recommendations that should be implemented to improve access to podiatric services in New Zealand.

A publication in the *Journal of Foot and Ankle Research* has highlighted the need for improved access to podiatry care for rheumatology patients in New Zealand.<sup>1</sup> In summary, the clinical audit demonstrates that there is an unmet need for professional and specialist foot care and concurs with findings from an audit in the UK that also identified the same unmet need.<sup>2</sup> Although these two studies were carried out in one locality, albeit different countries, it is perceived generally that the input of specialist podiatry into rheumatology services is, at best patchy.

### **The rheumatoid foot**

Rheumatoid arthritis (RA) is the most common inflammatory arthritis. It is a chronic, immune-mediated inflammatory disease which can lead to significant joint damage and functional impairment.<sup>3</sup> Up to 90% of people with RA have foot involvement and the prevalence and impact of foot problems is strongly associated with disease severity and duration.<sup>3</sup> Medical management focuses mainly on controlling disease activity, providing symptom relief and maximising quality of life.

Although modern treatments have improved systemic disease control substantially in recent years, complete remission is still unusual. However, despite the medical management patients often continue to suffer the effects of joint damage with the foot being affected in the majority of cases.

People with RA often present at their consultation with complex needs, and it is easy for foot problems to be overlooked. Assessment of the feet is not as straightforward as more accessible parts of the body. Foot examination may be considered awkward by some practitioners as the footwear has to be removed. Where a foot assessment is performed, the management of foot problems is sometimes not well understood. The end result of this uncertainty and inconsistency is that foot problems are often neglected, and lack of integration of podiatry into the rheumatology team maintains it

as a *Cinderella service* and people with RA continue to suffer foot pain, limited ability and poor quality of life.<sup>4</sup>

It is of concern that foot problems are overlooked as we know that the majority of patients have foot involvement. Patients with inflammatory arthritis have an increased need for a range of basic foot care services. Long-standing inflammation leads to structural deformity and soft tissue lesions which in turn generate areas of pressure that result in callus and corn formation (Figure 1). There is evidence that early intervention for existing or potential foot problems can improve long term outcomes.<sup>5</sup> Baseline foot examinations can identify people with existing or imminent needs and provide a comparator for assessment. Regular assessments that document the rate of structural change can aid treatment decisions and improves outcomes.<sup>4</sup>

**Figure 1. Rheumatoid foot with a severe bunion, lesser toe deformities and bursitis over the second and third metatarsal heads**



Patients with RA who experience a sudden 'flare' in disease activity should have direct access to specialist advice, and be offered the option of an early review with appropriate multidisciplinary team members, including podiatrists. Similar reviews of needs should be undertaken during periods of disease remission. Podiatrists have a role to play in supporting patients with RA in managing aspects of their condition themselves, as well as in providing timely and relevant foot health specific advice and education.

Patients with RA can experience variations in disease activity (exacerbations and remissions) and may have acute needs (e.g. infection) superimposed on the overall disease process.<sup>2</sup> The foot contributes to difficulty with walking in about 75% of people with RA, and is the main or only cause of walking difficulty in 25%. In the foot, joint pain and stiffness is the most common initial presentation, but a range of other features, including tenosynovitis, nodule formation and tarsal tunnel syndrome may also present, reflecting widespread soft-tissue involvement.<sup>3</sup>

Podiatrists have a prominent role to play in symptom relief and improving quality of life because involvement of the feet, even to a mild degree, is a significant marker for impaired mobility, functional incapacity and negative psychosocial impact.<sup>4</sup> In the UK, NICE have published the guidelines on the treatment of people with RA.<sup>6</sup> These guidelines provide a clear information and direction to commissioners and providers on what is expected by NICE in terms of funding and service provision. NICE recommended that all people with RA and foot problems should have access to a podiatrist for assessment and periodic review of their foot health needs, and that foot orthoses and therapeutic footwear should be available for all people with RA if indicated.

## **Current podiatric services and rheumatoid arthritis**

A scoping exercise led by the key author exploring regionalised access to podiatry services was carried out through the professional body, Podiatry New Zealand. The findings overall were a lack of consistency and integration with rheumatology services with aspects of podiatry being provided by a range of disciplines including consultants, medical trainees, general practitioners, nurses, orthotists, physiotherapists, and occupational therapists in addition to podiatrists when they are accessible. In comparison with diabetic foot care there is inequality.

The New Zealand Guidelines Group published a minimum standard of guidelines for the assessment and monitoring of the diabetic foot in New Zealand.<sup>7</sup> People with rheumatic diseases often present with complex needs, and it is easy for podiatric problems to be overlooked such as pain, functional activities and disability.

However, there is published evidence of unmet podiatric care needs for patients with RA;<sup>8</sup> evidence that single interventions such as orthotics and footwear are clinically effective;<sup>9,10</sup> and evidence of UK-wide under provision of foot care either in primary or secondary care settings.<sup>11</sup> Phase I and II data and the methodological considerations for a definitive phase III trial of podiatry-led care have recently been published.<sup>12</sup> Recent review papers report moderate-to-good evidence for the use of foot orthoses in patients with rheumatoid arthritis.<sup>9,10,13</sup>

Current evidence from a New Zealand perspective has recently been reported.<sup>1</sup> The goal of the study was to identify the nature of foot problems experienced by patients with RA attending the rheumatology outpatient clinics at Counties Manukau DHB and to ascertain the availability of a podiatry services for these patients. Foot and ankle assessment were based upon the recommendations from the Standards of Care for People with Musculoskeletal Foot Health Problems.<sup>4</sup>

100 patients (n=100) who fulfilled the American College of Rheumatology criteria for diagnosis of RA were recruited into the study.<sup>14</sup> Patients were excluded if they did not fulfil American College of Rheumatology criteria for RA and non-residents/visitors with only brief contact with Counties Manukau DHB (< 3 months) or who lived outside Counties Manukau DHB.

The results demonstrated over 85% of RA patients suffered from foot lesions, ranging from callus, corns and nail problems. 86% of patients had deformities of their lesser toes. The majority of foot lesions (64%) were observed on the forefoot around the metatarsal heads. Bilateral hallux valgus (bunions) was observed in 64% of patients.

The current study highlighted that patients with RA at Counties Manukau DHB have an increased need for a range of podiatric interventions and preventions. The results also highlighted high number of patients with foot pain and disability associated with foot problems that includes callus, corns and lesser toe deformities with RA.

Recommendations of the study included that baseline foot examination can identify people with existing or imminent needs and provide a comparator for assessment. Regular assessments that document the rate of structural change can aid treatment decisions and improves outcomes. An annual musculoskeletal, vascular and neurological assessment, which includes an assessment of the lower limbs and feet, will help identify problems early.

### **Recommendations to improve access to podiatry services for New Zealand with rheumatoid arthritis**

Expertise in dealing with foot problems is often limited among rheumatologists and primary care practitioners, and it has been argued that better integration of podiatric services into rheumatology care would be beneficial. Last year, a foot and ankle symposium was held last year prior to the New Zealand Rheumatology Association conference which speakers from New Zealand and the UK presented the problems associated with the musculoskeletal foot and ankle. The key speakers included orthopaedic surgeons, rheumatologists, physiotherapists, podiatrists and specialist nurses. The conference was very well attended by a range of health care professionals and the need to develop and implement a rheumatology focussed foot and ankle interest group was agreed by all delegates.

The recent work by our group<sup>1</sup> further emphasises that this is an unmet need for patients with arthritis in New Zealand, and that incorporation into the rheumatology multidisciplinary team is required to improve clinical outcome of these patients. It was also clear from the discussions that ensued that what is needed is an integrated approach to the management of foot problems with podiatrists being the key practitioner in co-ordinating assessment and management of the foot and its related problems.

Future directions should include education and training should be provided to primary care staff and foot health care providers to enable them to understand the systemic consequences of musculoskeletal disorders on the feet. Training should begin with undergraduate education and extend to post-registration education and continuing professional development.<sup>4,15</sup>

Clear guidelines, protocols and referral pathways should be developed locally that include agreed criteria for suitability for self-management, eligibility for access to foot health services from both primary and secondary care referrals, and also for self-referral.

Referral pathways in to podiatric services should make clear:

- Who has access to their services (e.g. geographic location, referring agencies and organisations);
- The signs and symptoms that indicate referral;
- Red flags that indicate priority referral.<sup>4</sup> Examples would include: joint pain and synovitis—within the first 18 months from onset of symptoms. Restricted mobility and activity limitation associated with the above or established foot disease. Inability to care for own feet; Risk factors for ulceration—deformity, vasculitis poor footwear, medication affecting tissue viability. Signs of infection (bacterial, fungal or viral) or ulceration (particularly those patients on biologics).

Podiatrists should be fully integrated as a member of a multidisciplinary team. While some musculoskeletal foot problems can be managed in isolation, complex or systemic conditions such as RA require a multidisciplinary approach to management.<sup>16,17</sup>

Foot disorders can affect many aspects of a person's life, especially when associated with systemic disease, and care may need to include input from many different professionals from health and social care. Surgery may also be considered when severe symptoms persist and do not respond to conservative treatment. People with progressive foot problems may require specialist surgical opinion with the facility for immediate surgical referrals e.g. those with nerve compression or tendon ruptures.<sup>4</sup>

In summary, we hope the recommendations suggested in this view-point will act as a catalyst for all stakeholders—service users, providers, commissioners and policymakers—to work together to implement access to their local podiatric services and crucially, to strive for integration of specialist podiatrists into the multidisciplinary team.

**Competing interests:** None known.

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