Management of gout in primary care: challenges and potential solutions

Strategies to improve gout management

This editorial refers to Primary care providers' knowledge, beliefs and treatment practices for gout: results of a physician questionnaire, by Leslie R. Harrold et al. on pages 1623–9.

Gout is now the most common form of inflammatory arthritis. Despite major advances in treatment strategies, new therapeutic agents and the publication of management guidelines by the British Society for Rheumatology, European League Against Rheumatism and ACR, studies from many different countries have shown deficiencies in the quality of gout care [1–3]. Worldwide, this disease is predominantly managed in primary care. A study by Lesley Harrold et al. [4] in this issue of the journal examines the knowledge about gout and treatment patterns reported by 838 primary care physicians in the USA. In a national survey of a random sample of primary care physicians, respondents were provided with clinical scenarios describing patients with acute and intercritical gout in the setting of chronic kidney disease (CKD) and tophaceous gout. The reported management was compared with published recommendations as the gold standard.

Management of acute gout flares was consistent with treatment guidelines in about half the respondents, and management of intercritical and tophaceous gout was consistent with guidelines in <20%. Important variations from treatment guidelines were the use of medications in CKD (avoidance of NSAIDs, reduction of colchicine dose and reduction of the initial allopurinol dose), titration of urate-lowering therapy to the serum urate target (<0.36 mmol/l), use of colchicine prophylaxis when commencing urate-lowering therapy and recognition that the presence of tophi is a definite indication for urate-lowering therapy. These concepts are essential for the safe and effective management of gout.

Prescribing gout medications in patients with CKD is particularly relevant in clinical practice, especially as patients with gout have high rates of kidney disease. NSAIDs are a frequent contributor to renal impairment in patients with poorly controlled gout, and initiation of effective urate-lowering therapy frequently leads to improved kidney function because of the reduced requirement for NSAIDs [5]. Initial allopurinol doses should be adjusted (1.5 mg/unit glomerular filtration rate) in patients with severe CKD, but once allopurinol is established, the dose should be increased until the serum urate is below the therapeutic target (typically <0.36 mmol/l) [6]. Colchicine doses should also be reduced in patients with CKD, particularly in the context of co-prescription of CYP3A4 and P-glycoprotein inhibitors [7].

For more than a decade we have observed and described deficiencies in gout management. The study by Harrold et al. [4] is important because it contributes to our understanding about the gaps in knowledge and practice for those who most frequently treat patients with gout. This information should be used to identify and implement strategies to improve gout management.

Key to this is an approach based on effective and systematic chronic care management [8]. With the growing engagement of primary care teams in proactive care of patients with long-term conditions, there is a potential to substantially improve outcomes for those with gout.

The Harrold study has highlighted a key barrier to gout management for many patients and physicians, which is the perception that gout is an acute condition that requires treatment only during a painful flare. However, in patients with gout and poorly controlled hyperuricaemia, deposition of monosodium urate crystals occurs within the joint even in the absence of clinically apparent inflammation [9]. Thus gout should be viewed as a chronic condition with symptomatic flares, akin to asthma, IBD or chronic obstructive pulmonary disease. For those patients with frequent flares (>1 flare/year), tophi or radiographic damage, this chronic condition requires long-term preventive therapy. Numerous studies have shown the benefits of long-term serum urate lowering to subsaturating levels in preventing flares and reducing tophi. Models of primary care that promote regular monitoring and preventive therapy of gout as a chronic condition are needed. Rees et al. [10] reported excellent clinical outcomes in patients who received intensive education and follow-up in a nurse-led gout clinic. Such innovative approaches are well suited to primary care, with the potential to train and engage practice nurses, pharmacists, and community educators to help with initiation and maintenance of effective urate-lowering therapy.

A further important barrier to effective gout management within primary care may be the complexity of the medical conditions frequently observed in patients with gout. The high rates of cardiovascular disease, hypertension, diabetes, dyslipidaemia and CKD associated with gout frequently lead to polypharmacy and numerous drug interactions that must be carefully negotiated by the primary care physician during a brief multifaceted...
consultation. In addition to the multidisciplinary team approach, modification of systems may facilitate best practice within primary care. Such strategies include laboratory alerts for patients with hyperuricaemia, including information about treatment targets for gout management, clinical pathways developed with primary care physicians (e.g., see www.healthpointpathways.co.nz/gout-prevention) that are embedded within primary care practices, development and implementation of electronic decision support tools and modification of electronic recall systems. Recall systems are well established within primary care for cancer screening, immunization and management of other chronic conditions such as diabetes. Such systems in gout management could ensure regular monitoring of serum urate concentrations, trigger review of urate-lowering therapy adherence and dose if serum urate concentrations are above therapeutic target and ensure consistent urate-lowering therapy.

An important insight from the Harrold et al. [4] article is that only 11.4% of US primary care physicians were aware of published guidelines for gout management. Notably, this study was completed prior to the publication of the 2012 ACR guidelines, and US physicians may not be familiar with non-US guidelines. Nevertheless, this observation highlights an important disconnect between those who treat gout most frequently (primary care physicians) and those who lead the development of gout management guidelines (rheumatologists). To implement robust chronic care approaches for patients with gout, we need to build an active dialogue between leading primary care physicians and rheumatologists to form agreed strategies for gout management based on available evidence.

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Nicola Dalbeth1

1Bone and Joint Research Group, Department of Medicine, Faculty of Medical and Health Sciences, University of Auckland, Auckland, New Zealand.

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