Gout in Aotearoa New Zealand: are we going to ignore this for another 3 years?

Nicola Dalbeth, Catherine Gerard, Peter Gow, Gary Jackson, Carl Shuker, Leanne Te Karu, Doone Winnard

“It is not wholly fanciful to compare the Dartmouth Atlas of Health Care with On the Origin of Species.”¹ So wrote Richard Smith, for 13 years editor of the BMJ, in that journal in 2011. “Both books ... fundamentally changed our world view. Darwin's book showed our descent from apes. The atlas exploded the belief that medicine is based firmly on science.”

The Dartmouth Atlas has since 1996 been measuring the variation in the kinds of care and treatments Americans receive depending not on what's wrong with them, but on where they live. Some of Dartmouth's initial findings were a four-fold variation between states in rates of coronary artery bypass surgery, and a five-fold difference in the provision of carotid endarterectomy.² The New Zealand Atlas of Healthcare Variation went live in 2012 with just two domains and the goal of prompting debate and raising questions rather than making judgements on performance.³ There are now 18 domains, including, since early 2013, gout.⁴

Gout is the most common form of inflammatory arthritis affecting adults. It is a chronic disease of monosodium urate (MSU) crystal deposition, typically presenting as recurrent attacks of severe joint inflammation. Gout causes severe joint pain, work disability and reduced social participation. Untreated, tophi can develop, leading to joint damage. Gout can be effectively managed with long-term urate-lowering therapy such as allopurinol. Reduction of the serum urate to a target concentration (below 0.36 mmol/L for most people with gout) with urate-lowering therapy leads to dissolution of MSU crystals, prevention of gout attacks, regression of tophi and improved well-being and function for those living with gout.

The 2013 Atlas showed that not only are Māori and Pacific people more affected by gout than people of non-Māori, non-Pacific ethnicity, they were less likely to receive effective long-term urate-lowering therapy.⁵ There was, in fact, an inverse relationship—those populations with the highest rates of disease were least likely to receive the recommended urate-lowering treatment.

Clinicians can and do access the Atlas data to show how their region is doing. Those in primary care can use the Find My Patients query tool, developed by the Health Quality & Safety Commission, to identify patients in their own practice with a gout diagnosis who have not had a serum uric acid level test ordered in the last year.⁶ There is online guidance available to support best practice through various clinical pathways (depending on where in the country you are), and rheumatologists available for advice and/or see people for another opinion if treatment is less than straightforward. In addition, a range of professional and multidisciplinary groups, such as the Māori Pharmacists Association, Arthritis New Zealand, the Maaori Gout Action Group, and health literacy champions Workbase NZ, have worked hard to raise the profile of gout and debunk myths associated with gout for patients, whānau and practitioners.⁷

So, how is it that after 3 years, nothing has changed?
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The latest update to the gout Atlas domain, published today, shows nearly half of Pacific men and over a third of Māori men over 65 years of age are identified as having gout, as compared with 16.5% of New Zealand European and other men of the same age. In general, Māori and Pacific people have at least twice the gout prevalence of other ethnicities.

But how are they treated? Not well. The recommended first-line urate-lowering treatment for most people with gout is the drug allopurinol. On average, 41% of people identified with gout received allopurinol regularly. For populations with the highest rates of gout, the lowest rates of allopurinol are observed: 39% of Māori with gout received the drug; 33% of Pacific people. This compares with 43% for those of European/Other ethnicities. Figure 1 shows the negative correlations between Māori and Pacific peoples identified with gout and those regularly receiving allopurinol.

Furthermore, Māori and Pacific people had five times as many hospital admissions due to gout as those of European and other ethnicities.

Not only do Māori and Pacific people receive effective urate-lowering treatment less frequently, they receive more of the treatments of increased toxicity required to manage acute flares: colchicine and non-steroidal anti-inflammatory drugs (NSAIDs).

Why? What other disease affecting 4.9% of the population, nearly 13% of Pacific people and nearly 8% of Māori, is so persistently under-treated? And why, given the detailed information and resources being made available to clinicians, is the Atlas showing the problem is not improving? The flat lines tell a story of nothing happening (see Figure 2).

Is it the frustrating gap between Atlas findings and action on those findings, as the King’s Fund and others found with the NHS Atlas in the UK? Is it because patients still suffer in silence due to the stigma associated with gout? Do patients, GPs and practice nurses think it is “just gout”? Do patients prefer taking NSAIDs intermittently to daily allopurinol, despite the risk of long-term joint damage? Are the models of care wrong—how do you engage in effective support for self-management when short consultations are consumed by sorting out treatment of acute gout attacks? Has lack of titration at allopurinol initiation in the past dissuaded gout patients who would otherwise benefit from allopurinol treatment? What’s the role of funders and of primary health organisations in engaging with their populations? Is it because the extreme pain, inability to work and interact with family associated with gout is not considered a priority problem, even though it is closely associated and often comorbid with diabetes and cardiovascular disease?

Or is it something else, something we can address by first critically looking at the data and asking the difficult questions?

**Figure 1:** The correlations between Māori and Pacific peoples identified with gout and those regularly receiving allopurinol (each data point represents data from one District Health Board).
Figure 2: Prevalence of identified gout; those regularly receiving allopurinol; NSAID use but no allopurinol; and colchicine use but no allopurinol, 2012–2014.
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Author information:
Catherine Gerard, Evaluation Manager, Health Quality & Safety Commission; Peter Gow, Rheumatologist and Clinical Associate Professor of Medicine, Counties Manukau District Health Board; Gary Jackson, Executive Director, EY NZ, Carl Shuker, Principal Adviser, Publications. Health Quality & Safety Commission; Leanne Te Karu, Clinical Pharmacist, Māori Pharmacists’ Association; Doone Winnard. Clinical Director Population Health, Counties Manukau District Health Board; Nicola Dalbeth, Rheumatologist and Professor, Bone and Joint Research Group, Department of Medicine, Faculty of Medical and Health Sciences, University of Auckland.

Corresponding author:
Nicola Dalbeth, Rheumatologist and Professor, Bone and Joint Research Group, Department of Medicine, Faculty of Medical and Health Sciences, University of Auckland. n.dalbeth@auckland.ac.nz

URL:

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