

Nurse-led care significantly more successful in treating gout, trial reveals

Nottingham, UK (October 18, 2018) - The research, led by academics at the University of Nottingham and published in *The Lancet*, has shown that keeping patients fully informed and involving them in decisions about their care can be more successful in managing gout. And the study, which was funded by the charity Versus Arthritis, highlights the importance of individualised patient education and engagement to treat the condition.

Professor Michael Doherty, in the University's Division of Rheumatology, said: "The nurses delivered recommended best practice that includes full patient information and engagement and a treat-to-target strategy for urate-lowering treatment. Once fully informed almost all patients want urate-lowering treatment and continue to take it regularly. This results in gradual elimination of the urate crystals that cause gout and subsequent clinical improvements.

"Although nurses delivered this care, the principles of patient education, treat-to-target urate-lowering strategy, and regular follow-up and monitoring are applicable to any health professional who treats people with gout. Although this takes more time with the patient to start with, long-term this becomes very cost effective."

Gout is the most common type of inflammatory arthritis, which affects around 2.5 per cent of adults in the UK and which causes episodes ("attacks") of severe joint inflammation and pain. It is sparked by a persistent high level of uric acid (urate) in the body, causing sodium urate crystals to slowly but continuously form in and around the joints.

Attacks are usually treated with anti-inflammatories like ibuprofen but doctors may prescribe drugs such as allopurinol or febuxostat over the long term for patients who are prone to frequent flare ups.

Gout is the only form of arthritis that can be 'cured' in effect through the use of urate-lowering therapies (ULT). The ULT dose needs to be adjusted against the blood urate level until a target low level is achieved, this then prevents new crystals from forming and slowly dissolves away the crystals that are there. Patients can also make lifestyle changes if appropriate, such as losing weight if overweight, which can help to bring down urate levels and have other general health benefits.

However, currently only 40 per cent of gout patients ever receive ULT,

usually at a fixed dose rather than gradually increasing the dose until a target level of urate is reached in the blood. And getting patients to stick to their medication is tricky.

A previous 'proof of concept' study suggested that when people with gout are fully-informed and involved in the decisions around managing their illness, more than nine out of ten wished to have ULT treatment and subsequent adherence to their medication over one year was excellent.

This led to the latest two-year randomised controlled clinical trial in the community to directly compare nurse-led care to the usual GP-led care.

More than 500 gout patients were recruited and randomly split between the two methods of management through more than 50 general practices in the East Midlands. They were followed up at one and two years and assessed for a series of outcomes including the level of urate in their blood, the frequency of gout flare ups and the presence of tophi - firm, white lumps below the surface of the skin caused by a mass of urate crystals.

The research nurses had received training about gout and its management, which reflected current recommendations, and delivered an individualised package of care. This included a holistic assessment, a discussion of perceptions about the illness, full information about gout e.g its causes, consequences and treatment options, and patient involvement in shared decision-making.

The study found that nurse-led care was associated with a much higher take up of ULT, with patients subsequently being more likely to stick to their treatment. At two years, 96 per cent of the nurse-led group were on ULT, compared to 56 per cent in the usual care group.

And 95 per cent of patients had urate levels in the blood below the required target level, compared to just 30 per cent in the GP-led group.

In addition, it revealed that around 400-500mg of allopurinol per day was the dose needed to achieve the right level of urate in the blood, which is more than the top dose of 300mg per day prescribed by most UK doctors.

The nurse-led care significantly reduced flare-up frequency, reduced tophi and improved quality of life and was more cost effective too, saving the NHS money after five years.

Stephen Simpson, Director of Research at Versus Arthritis, said: "Despite national guidelines on how to manage gout effectively, we know that many patients fail to receive any clear explanation of the condition or lifestyle advice to prevent recurring attacks, with few even receiving the appropriate drug treatment. As the most common inflammatory form of arthritis, affecting one in every 100 people, this is not good enough.

"Currently, constraints on GP's time mean patients are not fully aware of the benefits that come with taking their treatments. The patient-centred approach led by nurses in this study offers a convincing alternative that will not only help to alleviate problems in the long term but will also improve that person's quality of life.

We are optimistic that if the methods of treatment used in this study are incorporated into national guidelines for GPs we will see a much more effective long-term management of gout, an improvement in the quality of life a person has after an attack, as well reducing healthcare costs over time."

The Nottingham team worked in collaboration with academics in Health Economics and Decision Science at the University of Sheffield and received invaluable advice from the Nottingham Rheumatology Patient and Public Involvement group during the development of the study. The Nottingham team now plan to examine the feasibility of training existing Practice nurses to see if this results in equally good results. NICE is currently planning to develop UK Guidelines for Management of Gout and it is hoped that the principles used in this study will be incorporated into their guideline to GPs and other health practitioners who manage people with gout.

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