

**Annual European Congress of Rheumatology  
(EULAR 2018)**

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**DAILY TEXT MESSAGE MAY IMPROVE ADHERENCE AND TREATMENT OUTCOMES  
IN PATIENTS WITH GOUT**

Randomised controlled trial demonstrates significant effect on adherence rates and serum urate levels over 12 weeks

**Amsterdam, The Netherlands, 14 June 2018:** The results of a study presented today at the Annual European Congress of Rheumatology (EULAR 2018) demonstrate significant improvements in adherence and clinical outcomes in gout patients who received a daily text message to remind them to take allopurinol.<sup>1</sup>

Gout is a very common condition. It is caused by deposits of crystals of a substance called uric acid (also known as urate) in the joints, which leads to inflammation. Periods of time when you have gout symptoms are called flares. Flares can be unpredictable and debilitating, developing over a few hours and causing severe pain in the joints. Long-term urate lowering treatments (ULT), such as allopurinol, are recommended in chronic cases of gout to reduce serum urate levels sufficiently to dissolve existing urate crystals and to prevent further crystal formation.<sup>2</sup> However, a recent meta-analysis reported that overall adherence to ULTs was just 47%, which is surprisingly low considering that they do not have significant side effects or require taking tablets several times a day.<sup>3</sup>

“These results are important as the provision of effective interventions to improve low adherence in patients with gout is vital to improve disease-related outcomes,” said Professor Thomas Dörner, Chairperson of the Abstract Selection Committee, EULAR.

There were 82 patients with gout in the study, 42 were randomised to receive daily short message reminders to take allopurinol (intervention group). The other 40 were randomised to receive a weekly short message containing information on non-pharmacologic treatment for gout (control group). After 12 weeks, 88.1% of the intervention group were considered adherent\* versus none of the control group. The relative risk of adherence was calculated at 71.5 with a confidence interval of 4.54-1126.8 ( $p=0.002$ ). Serum urate level was significantly decreased in both groups, however, the reduction in the intervention group was significantly greater than in the control group ( $-1.47 \pm 0.86$  vs.  $-0.28 \pm 0.39$  mg/dL,  $p<0.001$ ). Serum creatinine was also significantly decreased in the intervention group ( $-0.03 \pm 0.09$  mg/dL,  $p<0.031$ ), while serum creatinine was unchanged in the control group.<sup>1</sup>

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\*Adherence was defined as a score of greater than 21 in the Medication Taking Behaviour for Thai patient (MTB-thai) score.

“Our results clearly show that mobile phone text reminders could be an important tool to enhance allopurinol adherence and help in controlling serum urate levels in gout patients,” said Dr Pongthorn Narongroeknawin, Head of Rheumatic Disease Unit, Phramongkutklao Hospital, Thailand (study author).

Patients included in the study were diagnosed with gout by 1977 ARA classification criteria for gout, receiving at least one month of allopurinol, and had estimated glomerular filtration rate greater than 30mL/min/1.73m<sup>2</sup>. There were no significant differences in the baseline characteristics of the intervention vs. control groups; SUA levels of 7.66 ± 1.24 vs. 7.78 ± 1.17 mg/dL, MTB-Thai score\* of 18.38 ± 0.73 vs. 18.37 ± 0.95.<sup>1</sup>

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## **NOTES TO EDITORS**

**For further information on this study, or to request an interview with the study lead, please do not hesitate to contact the EULAR Press Office:**

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## **About Rheumatic and Musculoskeletal Diseases**

Rheumatic and musculoskeletal diseases (RMDs) are a diverse group of diseases that commonly affect the joints but can affect any organ of the body. There are more than 200 different RMDs, affecting both children and adults. They are usually caused by problems of the immune system, inflammation, infections or gradual deterioration of joints, muscle and bones. Many of these diseases are long term and worsen over time. They are typically painful and limit function. In severe cases, RMDs can result in significant disability, having a major impact on both quality of life and life expectancy.<sup>4</sup>

## **About ‘Don’t Delay, Connect Today!’**

‘Don’t Delay, Connect Today!’ is a EULAR initiative that unites the voices of its three pillars, patient (PARE) organisations, scientific member societies and health professional associations - as well as its international network - with the goal of highlighting the importance of early diagnosis and access to treatment. In the European Union alone, over 120 million people are currently living with a rheumatic disease (RMD), with many cases undetected.<sup>5</sup> The ‘Don’t Delay, Connect Today!’ campaign aims to highlight that early diagnosis of RMDs and access to treatment can prevent further damage, and also reduce the burden on individual life and society as a whole.

## **About EULAR**

The European League against Rheumatism (EULAR) is the European umbrella organisation representing scientific societies, health professional associations and organisations for people

with RMDs. EULAR aims to reduce the burden of RMDs on individuals and society and to improve the treatment, prevention and rehabilitation of RMDs. To this end, EULAR fosters excellence in education and research in the field of rheumatology. It promotes the translation of research advances into daily care and fights for the recognition of the needs of people with RMDs by the EU institutions through advocacy action.

To find out more about the activities of EULAR, visit: [www.eular.org](http://www.eular.org).

## References

- <sup>1</sup> Bunphong K, Narongroeknawin P. Mobile phone text messages for improving allopurinol adherence: A randomized controlled trial of text message reminders. EULAR 2018; Amsterdam: Abstract OP0212.
- <sup>2</sup> Zhang W, Doherty M, Bardin T, *et al*. EULAR evidence based recommendations for gout. Part II: Management. Report of a task force of the EULAR Standing Committee For International Clinical Studies Including Therapeutics (ESCISIT). *Ann Rheum Dis*. 2006;65(10):1312-24.
- <sup>3</sup> Yin R, Li L, Zhang G, *et al*. Rate of adherence to urate-lowering therapy among patients with gout: a systematic review and meta-analysis. *BMJ Open*. 2018;8(4):e017542.
- <sup>4</sup> van der Heijde D, *et al*. Common language description of the term rheumatic and musculoskeletal diseases (RMDs) for use in communication with the lay public, healthcare providers and other stakeholders endorsed by the European League Against Rheumatism (EULAR) and the American College of Rheumatology (ACR). *Annals of the Rheumatic Diseases*. 2018;doi:10.1136/annrheumdis-2017-212565. [Epub ahead of print].
- <sup>5</sup> EULAR. 10 things you should know about rheumatic diseases fact sheet. Available at: <https://www.eular.org/myUploadData/files/10%20things%20on%20RD.pdf> [Last accessed April 2018].