

LETTER TO THE EDITOR

Restricting maintenance allopurinol dose according to kidney function in patients with gout is inappropriate!

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We are concerned to read the paper by Laville *et al.* evaluating the appropriate prescribing of medications, including allopurinol, in people with chronic kidney disease [1]. We agree with the authors that hyperuricaemia is common in this population, but we disagree with the overall message presented by the authors that allopurinol maintenance doses must be restricted according to kidney function. Allopurinol, a xanthine oxidase inhibitor, not a uricosuric as stated in the manuscript, is one of the first-line urate lowering therapies for the management of gout. Current gout guidelines recommend reduction of serum urate to <0.36 or <0.30 mmol l^{-1} in those with more severe disease for optimal control of gout [2, 3]. It is well recognized that restricting the dose of allopurinol based on kidney function results in the majority of people with gout failing to achieve target serum urate concentrations [4]. The most concerning adverse effect of allopurinol is the rare but potentially fatal allopurinol hypersensitivity syndrome (AHS) which typically occurs in the first 6–8 weeks after starting allopurinol. There are a number of risk factors for AHS, including impaired kidney function and allopurinol dose [5]. Furthermore, in those who develop AHS, impaired kidney function is associated with poorer outcomes [6].

It is important when considering allopurinol dosing as a risk factor for AHS that the starting dose and the maintenance dose are distinguished. There is evidence that starting doses of greater than 1.5 mg of allopurinol per unit of eGFR (in ml min^{-1}) are associated with an increased risk of AHS [7]. It is therefore recommended that allopurinol be commenced at a maximum dose of 100 mg daily and the lower dose of 50 mg daily in those with CKD stage 3 or worse [2]. However, in people who have tolerated allopurinol, there is clear evidence that gradually increasing the dose above those based on kidney function is safe and effective even in people with chronic kidney disease [8–12]. There is no evidence that limiting the maintenance dose reduces the risk of AHS [7, 13].

Furthermore, even in people receiving dialysis, there is evidence that oxypurinol is cleared efficiently and allopurinol doses may not need to be restricted [14]. The authors' dogmatic stance that allopurinol dosing must be restricted is outdated and will without doubt lead to worse outcomes for people with gout.

Competing Interests

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