ALLOPURINOL - SAFE PRESCRIBING - DOSE UP

- PRESCRIBE EARLY BEFORE THE DEVELOPMENT OF TOPHI OR FREQUENT GOUT FLARES
- MONITOR SERUM URATE
- START AT A LOW DOSE AND GRADUALLY INCREASE UNTIL THE SERUM URATE TARGET IS ACHIEVED
- REPORT ANY SIGNS OF RASH

Gout is estimated to affect up to one third of Māori and Pacific men over 65 years of age in New Zealand and causes significant disability. Allopurinol is considered the first-line urate-lowering medicine, unless there is a history of allergy or intolerance.

PRESCRIBE EARLY, BEFORE THE DEVELOPMENT OF TOPHI OR FREQUENT GOUT FLARES

Long-term urate lowering is required for the effective management of gout, and should be started before the onset of tophi or frequent flares occur. Non-steroidal anti-inflammatory drugs (NSAIDs) will not stop joint damage or the frequency of flares. Long-term urate-lowering treatment is indicated for patients who have either early onset of gout and family history of gout, more than one gout flare per year, tophaceous gout, clinical or radiographic changes consistent with erosive gout or recurrent nephrolithiasis.

MONITOR SERUM URATE

It has been suggested that people with gout should think about their urate level in the same way that people with diabetes relate to their HbA1c.

Aim for target serum urate consistently less than 0.36mmol/L

This will reduce the risk of flares occurring and prevent the development of tophi. Lower targets (less than 0.30mmol/L) may be required for people with tophi.

Monitor serum urate monthly until the target has been reached, and then check 3 to 6 monthly with renal function tests.

Explain the importance of reaching target urate and monthly monitoring in the initial stages to ensure the appropriate dose is prescribed.

Liver function tests, serum creatinine and full blood count should also be monitored periodically.

START AT A LOW DOSE AND GRADUALLY INCREASE UNTIL THE SERUM URATE TARGET IS ACHIEVED

The optimal daily dose of allopurinol depends on patient tolerance and target serum urate level.

'Start low and go slow'. The recommended starting dose is 100mg daily, or lower (50mg daily) in stage 4 or worse chronic kidney disease. If tolerated, the dose may be increased until the target serum urate is reached. The maximum recommended dose is 900mg daily; 300mg per day is not usually sufficient.

Sudden changes in serum urate levels are likely to precipitate a gout flare. To reduce the risk of a flare, increase the dose **gradually** (by 50-100mg) at monthly intervals **and** prescribe in combination with a prophylactic dose of either colchicine* (eg 0.5mg daily or twice daily), or low-dose NSAID (eg naproxen 250mg twice daily), for 3-6 months **after achieving target serum urate**.

*please refer to the SafeRx® bulletin about colchicine for more details

Ongoing adherence is important for symptom control. Patient resources are available here. **Allopurinol should be continued indefinitely unless a rash appears.**

Auckland Regional Clinical Pathways has decision support tools for gout prevention and acute gout which are

Start allopurinol at 50-100mg daily
Increase daily dose by 50-100mg each month until serum urate is reached
Maximum dose 900mg daily

available for primary care providers in the Auckland region here.

REPORT ANY SIGNS OF RASH

Hypersensitivity syndromes are rare but can be fatal. People taking allopurinol should be advised to inform their doctor immediately if they develop any type of skin reaction while being treated with allopurinol.

Allopurinol hypersensitivity syndrome (AHS) is characterised by a rash, eosinophilia, leukocytosis, fever, hepatitis and renal failure. The risk is greatest during the first few months of therapy; prompt recognition and discontinuation of allopurinol will help to minimise morbidity and mortality.

➥ continued

ALLOPURINOL

There is an increased risk of AHS when allopurinol is given together with diuretics, particularly thiazide diuretics, and especially if there is impaired renal function. There is also an increased risk of rash when allopurinol is given together with amoxicillin.

People of Chinese, Thai and Korean ancestry are at higher risk of allopurinol hypersensitivity syndrome, due to high rates of a genetic marker, *HLA-B*5801*. Testing of this marker, and avoidance of allopurinol for *HLA-B*5801* carriers can reduce the incidence of AHS.

If allopurinol is not tolerated, alternative urate-lowering medicines (eg probenecid, benzbromarone, or febuxostat) should be considered.

There are many precautions surrounding concomitant prescribing of allopurinol with azathioprine; refer to the specialist team for appropriate management of gout for these people.

ACKNOWLEDGEMENTS

We wish to thank Nicola Dalbeth, Rheumatologist, Department of Medicine, University of Auckland for her valuable contribution to this bulletin.

KEY REFERENCES

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3. New Zealand Formulary. Allopurinol www.nzf.org.nz/nzf_5681.html (Accessed 16-04-18)

CLICK HERE FOR FURTHER INFORMATION ON ALLOPURINOL AND A FULL REFERENCE LIST

No: 0182-01-12, Issued March 2019; Review: March 2022