

## Benzbromarone (Benzbromaron®)

---

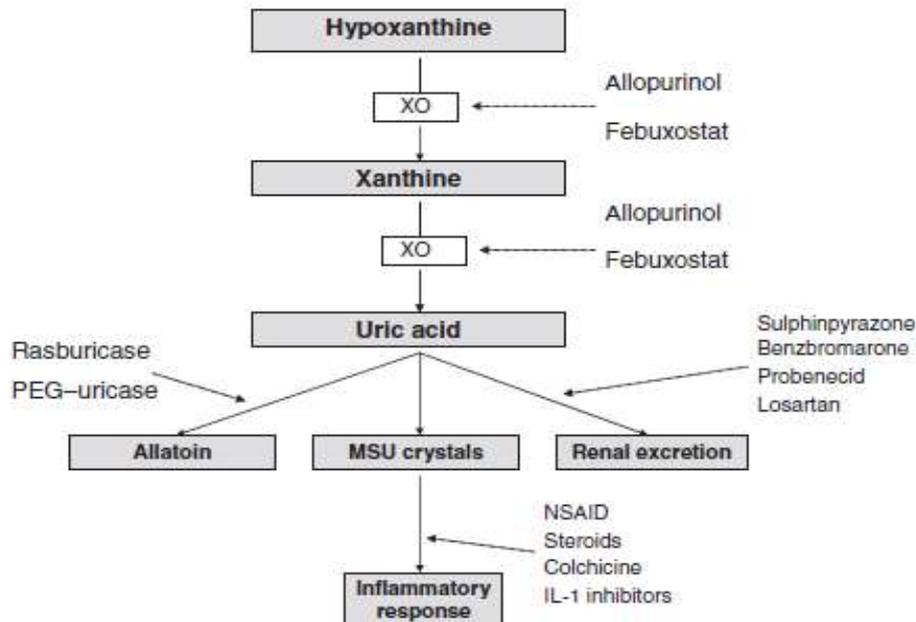
**Benzbromarone has been recently funded under Special Authority criteria for the chronic treatment of gout when allopurinol and/probenecid is not tolerated, contraindicated or ineffective despite optimal treatment doses.<sup>1,2</sup>**

### Key Messages:

- 100mg tablets are fully subsidised under Special Authority since 1 April 2013.
- Unapproved medicine supplied under section 29, not a new medicine.
- Discuss suitable patients with rheumatologist prior to initiation.
- Effective in moderate renal impairment (avoid use if CrCl < 20ml/min).<sup>1,2</sup>
- Effective at lowering uric acid, reducing the number of acute attacks and size reduction, and resolution of tophi.<sup>1</sup>
- Should not be used in patients with known hepatic disease, hepatic impairment or at risk of hepatotoxicity and in patients with a past history of kidney stones.<sup>4</sup>
- Generally well tolerated; 3-4% of patients discontinued because of diarrhoea, estimated risk of hepatotoxicity reported as 1 in 17000, elevated liver enzymes seen in over 0.1% of patients in clinical trials (no cases of jaundice reported).<sup>2</sup>
- Requires baseline LFT and monthly LFTs – stop treatment if significant elevation in transaminases occurs ( i.e. ALT and AST >2.5 to 3x the ULN). Hepatic injury arises after 1 to 6 months of therapy presenting with jaundice, fatigue and transaminase elevations.<sup>4,6</sup>
- Start low and go slow, use target serum Uric Acid (sUA) level of <0.36mmol/L to guide dose increases over the first 6 months however most patients achieve target sUA levels with a dose of 100mg once daily.<sup>4</sup>(refer to [www.nzformulary.org.nz](http://www.nzformulary.org.nz))
- When initiating benzbromarone concomitant low dose NSAID or colchicine should be prescribed to prevent early gout flares.
- Patients tolerating optimal doses of allopurinol can continue to take it in combination with benzbromarone.<sup>2</sup>
- Patients should be advised to maintain a high fluid intake, report any signs of jaundice and fatigue and other adverse effects immediately.
- Benzbromarone inhibits CYP2C9 and is known to increase the effect of warfarin - monitor INR and adjust dose of warfarin.

## Mechanism of Action of Medicines Used in Acute and Chronic Treatment of Gout<sup>3</sup>

**FIG. 3** Summary of the final part of purine metabolism and site of drug action (XO = xanthine oxidase).



## Genetics of Gout

- Benzbromarone inhibits the action of urate transporters SLC2A9, URAT1 and ABCG2 in the renal tubules.
- SLC2A9 is a key regulator for urate homeostasis.<sup>3</sup>
- Research indicates that inheriting one variant of SLC2A9 can increase the risk of developing gout by 30-70%.<sup>3</sup>
- On going research shows that people of Maori and Pacific ancestry have inherited a specific SLC2A9 variant that increases their risk of developing gout by five times.<sup>5</sup>

## References

1. Kumar, S et al. Benzbromarone therapy in management of refractory gout. *The New Zealand Medical Journal* (online) 118, 1217 (Jun 24, 2005):U1528
2. Ming-Han, L et al. A Benefit-Risk Assessment of Benzbromarone in the Treatment of Gout: was its withdrawal from the market in the best interest of patients?. *Drug Safety* 31. 8 (2008): 643-65
3. Rider, TG and Jordan, KM. The modern management of gout. *Rheumatology* 2010;49:5-14
4. An update on the management of gout. *Best Practice* Issue 51, March 2013 ([www.bpac.org.nz](http://www.bpac.org.nz))
5. Gout, Biochemistry Dept, University of Otago – <http://biochem.otago.ac.nz/our-people/tony-merriman/gout/>
6. United States National Library of Medicine, LiverTox, Clinical and Research Information on Drug-Induced Liver Injury – <http://livertox.nlm.nih.gov/Benzbromarone.htm>