

*Philip A Tideman, Rosy Tirimacco, Andrew St John and Gregory W Roberts, authors of the article, comment:*

 We agree that brand continuity for warfarin is preferred. While it seems unlikely there would be clinically significant differences in the two brands, which vary by a single excipient, there has been no formal bioequivalence testing. The availability of a single brand in Australia would simplify warfarin management and remove any confusion about brand swapping for both patients and clinicians.

### Naltrexone and liver disease


In the good review on long-term drug treatment of patients with alcohol dependence (Aust Prescr 2015;38:41-3), the important issue of underuse of pharmacotherapy for alcohol dependence is identified and an outline of treatment is given. However, the article states that naltrexone is contraindicated in acute hepatitis or liver failure. In my clinical practice, varying degrees of chronic liver disease are commonly encountered when treating an alcohol-dependent population. Continued heavy drinking is much more likely to pose a greater risk to liver function than naltrexone. Arguably, the risk-benefit assessment likely favours naltrexone treatment. Naltrexone can be prescribed in patients with stable or compensated cirrhosis but is not recommended in acute liver failure. It carries a low risk of hepatotoxicity. However, in my experience, many potentially suitable patients are not given the drug because of concerns about hepatotoxicity.

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#### REFERENCE

1. Yen MH, Ko HC, Tang FI, Lu RB, Hong JS. Study of hepatotoxicity of naltrexone in the treatment of alcoholism. *Alcohol* 2006;38:117-20.

*Philip Crowley, the author of the article, comments:*

 Precautions listed in naltrexone's product information include saying it may cause hepatocellular injury when given in excessive doses,

and its use in patients with active liver disease must be carefully considered in light of its hepatotoxic effects. The product information also states that naltrexone is contraindicated in acute hepatitis or liver failure. This is based on a study in which 300 mg/day naltrexone was administered to obese patients. Five of 26 naltrexone recipients, and none of the placebo group, developed elevated serum transaminases after 3-8 weeks of treatment.<sup>1</sup>

Data on aspartate aminotransferase (AST) and alanine aminotransferase (ALT) have been used as an indicator of hepatotoxicity, with concentrations indicating both the effects of medication on hepatotoxicity, and reduced hepatotoxicity due to reduced alcohol consumption. Twelve of 1383 participants (0.9%) in the COMBINE study<sup>2</sup> had elevated liver enzymes greater than five times the upper levels of normal. (Most cases were in the naltrexone group.) These effects resolved following discontinuation of the drug. This is the one study large enough to detect an adverse effect at this low level of incidence.

The study that Dr Mike McDonough refers to supports other smaller studies<sup>3,4</sup> indicating that naltrexone was not hepatotoxic at the recommended dose in a trial of 74 participants.

I agree that often patients do better in a risk-benefit assessment when taking naltrexone compared to not taking it (because of concerns about minor liver enzyme changes).

#### REFERENCES

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2. Anton RF, O'Malley SS, Ciraulo DA, Cisler RA, Couper D, Donovan DM, et al.; COMBINE Study Research Group. Combined pharmacotherapies and behavioural interventions for alcohol dependence: the COMBINE study: a randomized controlled trial. *JAMA* 2006;295:2003-17.
3. Brown ES, Carmody TJ, Schmitz JM, Caetano R, Adinoff B, Swann AC, et al. A randomized, double-blind, placebo-controlled pilot study of naltrexone in outpatients with bipolar disorder and alcohol dependence. *Alcohol Clin Exp Res* 2009;33:1863-9.
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