

### Topiramate may be effective for alcohol dependence

**Clinical question** Is topiramate safe and effective in the treatment of alcohol dependence?

**Bottom line** Topiramate (Topamax) is somewhat more effective than placebo in helping adults with alcohol dependence reduce heavy drinking (number needed to treat [NNT] = 7) and achieve abstinence (NNT = 9). Unfortunately, less than one-third of the patients in the active treatment group significantly reduced their drinking compared with baseline amounts and less than one-fifth achieved continuous abstinence for 28 days or more. As a safety precaution, topiramate was discontinued after 14 weeks and no further follow up is reported. Thus, long-term efficacy remains unknown.

**Synopsis** These investigators identified 371 adults, aged 18–65 years, who were given a diagnosis of alcohol dependence according to DSM-IV criteria. Participants who drank 35 or more (men) and 28 or more (women) standard drinks (14g of absolute alcohol) per week randomly received (concealed allocation) topiramate or placebo. Topiramate was initiated at 25mg daily and increased at weekly intervals for six weeks to a maximum of 300mg daily, split between morning and night. Plasma gamma glutamyl transferase (GGT) levels served as the biomarker to confirm drinking reduction. Individuals who assessed outcomes remained masked to treatment group assignment. Complete follow up occurred for 94 per cent

of participants at 14 weeks. Using intention-to-treat analysis, significantly more individuals receiving topiramate maintained 28 or more days of continuous non-heavy drinking (defined as less than five drinks for men and four drinks for women; 29.5 per cent vs 14.9 per cent, respectively; NNT = 7; 95 per cent confidence interval 4–16) and continuous abstinence (14.8 per cent vs 3.2 per cent, respectively; NNT = 9; CI 6–17) than those receiving placebo. Significantly more individuals in the topiramate group dropped out because of adverse events (18.6 per cent vs 4.3 per cent), including paraesthesia, taste perversion, anorexia, and difficulty with concentration.

**Level of evidence** 1b (randomised controlled trial with narrow confidence interval)

**Reference** Johnson BA, Rosenthal N, Capece JA, et al, for the Topiramate for Alcoholism Advisory Board and the Topiramate for Alcoholism Study Group. Topiramate for alcohol dependence. A randomized controlled trial. *JAMA* 2007;298:1641–51.

#### Funding Industry

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