

## Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence (Cochrane Review)

Mattick RP, Kimber J, Breen C, Davoli M  
ABSTRACT

---

A substantive amendment to this systematic review was last made on 24 February 2003. Cochrane reviews are regularly checked and updated if necessary.

**Background:** Buprenorphine has recently been reported to be an alternative to methadone and LAAM for maintenance treatment of opioid dependent individuals, differing results are reported concerning its relative effectiveness indicating the need for an integrative review.

**Objectives:** To evaluate the effects of buprenorphine maintenance against placebo and methadone maintenance in retaining patients in treatment and in suppressing illicit drug use.

**Search strategy:** We searched the following databases up to 2001, inclusive: Cochrane Drugs and Alcohol Review Group Register, the Cochrane Controlled Trials Register, MEDLINE, EMBASE, Current Contents, Psychlit, CORK [[www.state.vt.su/adap/cork](http://www.state.vt.su/adap/cork)], Alcohol and Drug Council of Australia (ADCA) [[www.adca.org.au](http://www.adca.org.au)], Australian Drug Foundation (ADF -VIC) [[www.adf.org.au](http://www.adf.org.au)], Centre for Education and Information on Drugs and Alcohol (CEIDA) [[www.ceida.net.au](http://www.ceida.net.au)], Australian Bibliographic Network (ABN), and Library of Congress databases, available NIDA monographs and the College on Problems of Drug Dependence Inc. proceedings, the reference lists of all identified studies and published reviews and authors of identified RCT's were asked about any other published or unpublished relevant RCT.

**Selection criteria:** Randomised clinical trials of buprenorphine maintenance compared with either placebo or methadone maintenance for opioid dependence.

**Data collection and analysis:** Reviewers evaluated the papers separately and independently, rating methodological quality of concealment of allocation; data were extracted independently for meta-analysis and double-entered.

**Main results:** Thirteen studies met the inclusion criteria, all were randomised clinical trials, all but one were double-blind. The method of concealment of allocation was not clearly described in 11 of the studies, otherwise methodological quality was good. Buprenorphine given in flexible doses appeared statistically significantly less effective than methadone in retaining patient in treatment (RR= 0.82; 95% CI: 0.69-0.96). Low dose buprenorphine is not superior to low dose methadone. High dose buprenorphine does not retain more patients than low dose methadone, but may suppress heroin use better. There was no advantage for high dose buprenorphine over high dose methadone in retention (RR=0.79; 95% CI:0.62-1.01), and high dose buprenorphine was inferior in suppression of heroin use. Buprenorphine was statistically significantly

superior to placebo medication in retention of patients in treatment at low doses (RR=1.24; 95% CI: 1.06-1.45), high doses (RR=1.21; 95% CI: 1.02-1.44), and very high doses (RR=1.52; 95% CI: 1.23-1.88). However, only high and very high dose buprenorphine suppressed heroin use significantly above placebo.

**Reviewers' conclusions:** Buprenorphine is an effective intervention for use in the maintenance treatment of heroin dependence, but it is not more effective than methadone at adequate dosages.

**Citation:** Mattick RP, Kimber J, Breen C, Davoli M. Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence (Cochrane Methodology Review). In: *The Cochrane Library*, Issue 4, 2003. Chichester, UK: John Wiley & Sons, Ltd.

---

This is an abstract of a regularly updated, systematic review prepared and maintained by the Cochrane Collaboration. The full text of the review is available in *The Cochrane Library* (ISSN 1464-780X).

*The Cochrane Library* is designed and produced by [Update Software Ltd](#), and published by John Wiley & Sons Ltd.