

# Buprenorphine may be more effective than clonidine and other symptomatic medications for short term ambulatory heroin withdrawal

Lintzeris N, Bell J, Bammer G et al. A randomized controlled trial of buprenorphine in the management of short-term ambulatory heroin withdrawal. *Addiction* 2002 Nov;97:1395–404.

**QUESTION:** How effective is buprenorphine for managing ambulatory heroin withdrawal compared to clonidine and other symptomatic medications?

## Design

Open label randomised controlled trial. Outcome assessors were not blind to treatment allocation.

## Setting

2 specialist outpatient drug treatment centres in inner city Melbourne and Sydney, Australia; timeframe not specified.

## Participants

Participants were 114 dependent heroin users aged over 18 years with no other significant drug dependence, medical or psychiatric conditions or recent methadone treatment. Mean age 30 years; 35% women.

## Intervention

Participants received up to 5 days of buprenorphine or up to 8 days of clonidine or other symptomatic medications (control). Doses varied daily. Following the ambulatory withdrawal treatment, participants could select from naltrexone, substitution maintenance or counselling post-withdrawal strategies.

## Main outcome measures

Main outcomes were retention in withdrawal, heroin use during withdrawal and retention in drug treatment 4 weeks after withdrawal. Withdrawal severity, adverse effects and heroin use post-withdrawal were secondary outcomes. Post-treatment follow up was 89%. 35-day follow up was 81%.

## Main results

The buprenorphine group had better treatment retention than controls at day 8 and day 35 (see table). The buprenorphine group also reported fewer days' heroin use during withdrawal (3 v 5 days control) and in the post-withdrawal period (9 v 15 days control). No severe adverse events were reported.

## Conclusions

Buprenorphine is safe and effective for short-term ambulatory heroin withdrawal. Compared to clonidine and other symptomatic medications, buprenorphine was associated with greater retention, less heroin use and less discomfort during withdrawal.

## COMMENTARY

This study is methodologically exemplary, given the difficult subject matter. Lintzeris *et al* report the first controlled trial of short term opioid withdrawal treatment in Australia, comparing buprenorphine with clonidine in an ambulatory setting. People receiving buprenorphine had significantly greater retention, less heroin use and less withdrawal discomfort compared with clonidine. The intervention was provided for an extended period, and the sample size was large, providing sufficient power.

This study has several implications for clinical practice. This is the first randomised study to suggest that buprenorphine is more effective for short term ambulatory withdrawal than clonidine and other symptomatic medications. This relatively new approach could be included in withdrawal management. In clinical practice, sublingual buprenorphine tablets are a valuable treatment option in managing ambulatory and inpatient opioid withdrawal.

Withdrawal services require new approaches to enhance completion rates, alleviate withdrawal symptoms, and increase participation in longer term addiction treatments. Moreover, new treatment options like buprenorphine, a partial opioid agonist, may be important for people who do not wish to be detoxified with standard withdrawal medications like methadone, clonidine, and lofexidine. As the authors point out, however, the findings can not be generalised to broader populations of heroin users because patients with additional dependence (cocaine, alcohol, benzodiazepines) were excluded.

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Treatment retention for people with heroin dependence receiving ambulatory treatment with buprenorphine or symptomatic medications

Retention	Buprenorphine % (n=56)	Symptomatic drugs % (n=58)	Number needed to treat to benefit 1 with buprenorphine (95% CI)	Relative risk reduction (95% CI)
At 8 days	86	57	3 (2 to 7)	51 (14 to 88)
At 35 days	62	39	4 (2 to 19)	59 (0 to 120)