

## **From Subutex to Suboxone : the Australian experience**

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Opiate substitution treatment in Australia is delivered under a nationalised health and medicines insurance system. Methadone treatment was implemented in Australia during the decade of the 1970s. The treatment is provided by either specialist clinics (providing approximately 30% of treatment) or by general practitioners and community pharmacies (approximately 70% of treatment).

The population in opiate substitution treatment has grown significantly in Australia in the past three decades. In 1986 there were approximately 4900 opiate dependent people in treatment, by 1996 this had grown to approximately 17,500, by 2006 there were 38,000 in treatment.

The treatment is provided under a regulated framework. Most administration of opiate substitution medications occur under supervised conditions. A nurse or pharmacist supervises the patient taking their dose of methadone or buprenorphine. Only a minority of doses are provided as non-supervised doses or 'take-away' doses, typically only to very stable patients who have been in treatment for a period of time. However, even within this framework there is concern, especially in some states in Australia, regarding the selling and injection of 'take-away' doses of methadone.

Buprenorphine (as Subutex) was introduced in 2001 and rapidly grew to be the opiate substitute for 30% of those in treatment. Buprenorphine-naloxone treatment was introduced in 2006, as an opportunity to treatment with less directly supervised administration of doses. The uptake of buprenorphine-naloxone treatment has also been reasonably rapid. In the twelve months following its introduction it constituted approximately half of all patients on a form of buprenorphine treatment. However, many of these patients continue to receive treatment under the conditions of daily-supervised administration of doses.

There is not yet any current evidence of significant non-adherence to buprenorphine-naloxone treatment, including a lack of data showing diversion of abuse of buprenorphine-naloxone. Neither data from the medically supervised injection facility or needle-syringe data shows any significant injecting of buprenorphine-naloxone. The national sentinel drug consumption dataset, the illicit drug reporting system, has not yet demonstrated participants reporting primary dependence to buprenorphine-naloxone. Two current studies are examining the issue of abuse of buprenorphine-naloxone in

detail, one from the National Drug and Alcohol Research Centre, conducted by Prof Richard Mattick, and one from the Langton Centre, conducted by Assoc Prof James Bell.

There has been one Australian study examining the efficacy of buprenorphine-naloxone in conditions of unsupervised compare to supervised dosing, this has recently been reported in the journal *Addiction*. This essentially demonstrated that these two forms of treatment were equivalent in terms of reduction in heroin use and retention in treatment, and improvement in quality of life. Unsupervised dosing was less expensive. A very low prevalence of diversion or abuse of doses was also demonstrated.

Key issues in transferring patients from buprenorphine to buprenorphine-naloxone are:

- Adequate assessment and education for patients
- Medication transfer
- Monitoring and review of patients

Patients need to be educated regarding how buprenorphine-naloxone works, particularly issues regarding how and when naloxone can induce a withdrawal state. This is particularly important, as patients may be likely to be risk averse to being exposed to naloxone as part of their substitution treatment.

Medication transfer involves continuing the patient on the same dose of buprenorphine. For example a patient on 16 mg buprenorphine daily would be transferred to 16/4 mg of buprenorphine-naloxone daily. Patients should then be reviewed soon afterwards to monitor for the emergence of any adverse events. True adverse events on buprenorphine-naloxone appear to occur no more frequently than for buprenorphine. Naloxone allergies are particularly uncommon. Patients may prefer buprenorphine to buprenorphine-naloxone if they are injecting buprenorphine. This should be considered in the transfer process.

The transfer from methadone onto buprenorphine-naloxone follows the same principals as induction directly onto buprenorphine to minimise the risks of precipitated withdrawal. Methadone doses should be ceased; the patient should not be commenced onto buprenorphine-naloxone until significant methadone withdrawal symptoms have emerged; low doses of buprenorphine (e.g. 4 mg) should be used initially, with a capacity to increase doses as rapidly as required to stabilise the patient. Further research is required to demonstrate the optimal process for transfer from methadone to buprenorphine or buprenorphine naloxone; the above points should be used as a general guide only.

Potential benefits of buprenorphine-naloxone include both direct patient benefits and public health benefits. For the individual patient there may be a reduced risk of injection of buprenorphine and the development of a 'black-market' for buprenorphine. There is also a reduced risk of overdose of buprenorphine compared to methadone, for the patient on opiate substitution or to other drug users or opiate naïve individuals. For these reasons buprenorphine-naloxone should be considered a treatment of choice, especially for those who require buprenorphine treatment.