

## 13.4 Anaesthesia during rapid opiate detoxification raises costs but does not improve outcomes

**Findings** Anaesthetising patients during accelerated opiate withdrawal is expensive and introduces new risks, but does not help patients complete detoxification or sustain drug use reductions.

The [first study](#) to directly make this comparison recruited 272 opioid dependent patients at four Dutch addiction services who wanted to stop using heroin and other opioids despite prior (average eight) unsuccessful detoxifications. After stabilising on methadone they spent a week in inpatient detoxification where naltrexone to precipitate withdrawal was followed by medication to mitigate the symptoms, including diazepam for anxiety. For the the day of precipitated withdrawal a randomly selected half were transferred to hospital where as soon as withdrawal symptoms became apparent they were anaesthetised for four hours. After completing detoxification all patients began daily naltrexone plus therapy to sustain abstinence. The course and severity of withdrawal and of craving for heroin were similar in the two groups, though slightly more severe at first after anaesthesia. Complications in five anaesthesia patients required short periods of hospitalisation. In each group all but a few completed detoxification and a month later compliance with treatment and drug use outcomes were virtually identical. Around 85% were still taking naltrexone, 46% had resumed heroin use, and on average heroin or methadone use had fallen from around 20 days a month before treatment to three afterwards. Anaesthesia elevated the average cost of detoxification from 2517 Euros to 4439 plus about 15 extra days in hospital for the treatment of complications.

**In context** Compared to conventional procedures, rapid detoxification under anaesthesia or deep sedation enables more patients to complete the procedure and start naltrexone therapy. Whilst in the short-term this means more are heroin-free, no study has yet found that significantly more remain so up to 18 months later.

The featured study shows that even these short-term advantages can be equalled by less radical procedures. Its significance is that it compared two approaches identical except that one used anaesthesia, the other light sedation. Relevant factors were probably a relatively stable set of patients, the shelter of an inpatient setting, and, perhaps crucially, acceleration of withdrawal using naltrexone and its comprehensive control by the same array of medications used during and after anaesthesia. Given these supports, nearly all the patients completed without needing deep sedation or anaesthesia.

The study also confirms British and US findings that inpatient detoxification completion rates improve (to over 80%) when detoxification is accelerated using naltrexone, and adds to the evidence that deep sedation or anaesthesia do not eliminate withdrawal discomfort.

**Practice implications** Whether detoxification under anaesthesia (and by extension, deep sedation) confers any benefits, let alone any sufficient to justify the added risks, is the issue posed by the study. The reason for retaining these options would be that some patients would only countenance or complete detoxification if rendered unconscious for the first few hours, and that this is the best way to reduce the risks they run from continued opiate use. Whether there are such patients and how many is unclear. Studies like the featured study cannot answer this question because they can only recruit subjects prepared to detoxify either way. However, if adding anaesthesia/sedation to inpatient accelerated withdrawal does not compress the process, reduce discomfort, or improve completion and long-term remission rates, it seems likely that very few well informed patient would insist on the more risky procedures.

Long-term recovery depends less on the detoxification technology than on what follows, particularly whether a suitable friend or relative is on hand to help ensure naltrexone is taken and on the quality and intensity of continuing monitoring and therapeutic support.

**Featured study** De Jong C.A.J. *et al.* "General anaesthesia does not improve outcome in opioid antagonist detoxification treatment: a randomized controlled trial." *Addiction*: 2005, 100, p. 206–215 [DS](#)

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