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▶ Retention in naltrexone implant treatment for opioid dependence.

Kunøe N., Lobmaier P.P., Vederhus J.K. et al.
Drug and Alcohol Dependence: 2010, 111, p. 166–169.
Request reprint using your default e-mail program or write to Dr Kunøe at nikolaj.kunoe@medisin.uio.no

In Norway over half the opiate dependent patients implanted with the opiate blocking drug naltrexone opted for another implant after six months when the first had worn off, giving themselves a year in which to construct a life no longer reliant on the effects of heroin.

Summary This account draws on Findings analyses of two of the three source studies set in prison and inpatient units respectively.

The featured report recruited opiate-dependent patients allocated to naltrexone implants in three Norwegian studies. Naltrexone is an antagonist which has no psychoactive effects of its own but blocks the effects of heroin and other opiate-type ('opioid') drugs. The implant form of naltrexone is inserted under the skin. In the form used in the studies, blocking effects last for five to six months, avoiding the need to take the medication daily and in theory overcoming the main shortcoming of oral naltrexone – that patients usually stop taking the pills and resume heroin use.

One of the source studies involved prisoners dependent on opiates before their sentence. Sixteen of the 24 who had been allocated to naltrexone were actually implanted before release after being randomly allocated to this or to methadone maintenance to promote continuity of treatment on release and avoid relapse. They were the minority prepared to accept random allocation (most potentially eligible prisoners did not) and who accepted the treatment to which they had been allocated (eight refused the implant).

In a second study, 56 patients (of 667 who might have qualified for the study) coming towards the end of their detoxification or residential treatment agreed to be randomly allocated to the implant or to usual aftercare arrangements; 26 of 29 allocated to naltrexone were actually implanted.

From these and a third study, 61 implanted patients were recruited for the featured study

to assess how many would continue the treatment by having a second implant after six months. Four to eight weeks before the end of the six months, patients were phoned and offered the second implant. Those who declined were reminded of the dangers of overdose and encouraged to initiate other treatment. Those who accepted but missed the initial appointment were re-contacted up to three times to check their wishes.

Main findings

Blood tests showed that all but a few patients had sufficient naltrexone circulating to block the effects of opiates for almost the entire six months of the initial implant.

Of the 61 patients, three had had the initial implant removed. After six months, 44 said they wanted to be re-implanted and 31 actually were. Six of the remaining 30 patients who were not re-implanted had started alternative treatments for their opiate dependence and another five were considered recovered from their addiction. Before treatment, patients who later did not accept a second implant had better employment records, had injected less often, and worried more often about family problems. During the initial implant the same patients had more often used opiates and other types of drugs, been more involved in crime, and had experienced more mental health problems and a lower quality of life than patients who were re-implanted.

The authors' conclusions

The results of this study suggest it is feasible to treat opioid dependent patients with repeated administrations of sustained release naltrexone implants. About half those initially implanted were re-implanted six months later (much better retention than on oral naltrexone) and only about a quarter clearly turned down the offer. The remainder – about a fifth – expressed a wish to be re-implanted but did not attend for this procedure despite repeated efforts by the clinical team. Together with the low incidence of implant removals, this suggests that most patients who start this treatment can remain in it for 10–12 consecutive months. Retained patients are likely to continue to experience previously reported benefits including reduced risk of relapse to regular opioid use, fewer opioid overdoses, and fewer deaths.

As with oral naltrexone, a longer pre-treatment employment history, concern about family problems, and less intense pre-treatment injecting drug use were associated with retention in treatment. Patients who during the initial implant period used illicit opioids or other drugs and/or engaged in more criminal activity, were less likely to be re-implanted, suggesting a return to a heroin-related lifestyle incompatible with a re-commitment to naltrexone-assisted abstinence.

FINDINGS The encouraging implications of this study are that patients who do relatively well on an initial implant will be willing to have a second one, giving them up to a year during which to construct a life no longer based on opiate use, and that this can be as many as half those initially implanted. These findings must be set in the context of what was a highly selected and probably highly motivated caseload.

Other reports from the Norwegian implant studies have also been analysed by Findings, in analyses which details the findings, place these in the context of related research, and explore UK regulations and experience related to naltrexone implants. Two concerned one of the main source studies for the featured report conducted in prison. One focused

on the acceptability of the attempt to randomly allocate prisoners to the treatments, while the second focused on drug use and other outcomes after six months. From the same research team, the other main source study for the featured report tested naltrexone implants versus normal aftercare for opiate-dependent patients leaving Norwegian inpatient treatment centres.

As well as the featured report, data from implanted patients in these and another Norwegian study have been amalgamated in a report on the degree to which the implants actually did block the effects of opiate-type drugs and prevent opiate use.

From these Norwegian reports it seems that six-month naltrexone implants can be an effective and lasting aid to curbing opiate use for the minority of patients motivated to aim for opiate abstinence and prepared to accept that opiate effects may be unavailable to them for six months. Because it does not require the patient to choose to enter aftercare treatment, the option may have a particular role in safeguarding patients emerging opiate-free from prison or other protected environments such as inpatient detoxification centres. However, and despite being motivated to sustain abstinence and being implanted, many if not most patients try opiates again and some do so repeatedly.

This draft entry is currently subject to consultation and correction by study authors.

Last revised 24 February 2012

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