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▶ A randomized clinical trial of methadone maintenance for prisoners: results at 12 months postrelease.

Kinlock T.W., Gordon M.S., Schwartz R.P. et al. Request reprint

Journal of Substance Abuse Treatment: 2009, 37, p. 277–285.

Starting methadone treatment in prison radically improves treatment uptake on release and reduces heroin and cocaine use over the following year, reports the first US randomised trial among formerly opiate dependent prisoners.

Abstract This report is a longer term follow-up of a study whose three-month follow-up results have previously been reported by Findings.

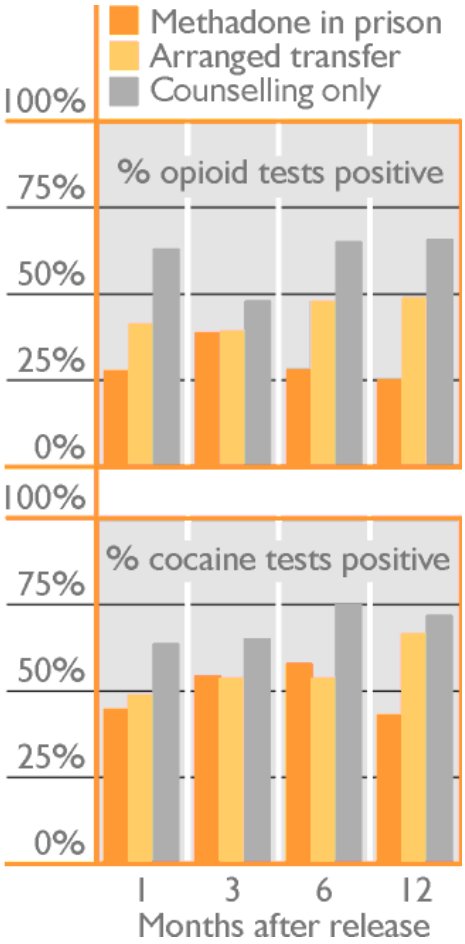
Researchers identified 564 male prisoners in Baltimore who (among other criteria) were within three to six months of release and had been heroin dependent or in methadone treatment in the year before they were imprisoned. Largely due to a lack of interest in receiving methadone maintenance, 353 were excluded from the study, leaving 211 who had a history of heroin dependence and were opioid-dependent immediately before imprisonment. Typically they were poorly educated African Americans aged between 35 and 45 with a history of repeated imprisonment and previous drug treatment. Before their latest spell in prison, on average they had used heroin every day and committed crimes nearly every day. Criteria for joining the study included suitability for and willingness to try methadone maintenance in prison, yet fewer than one third had previously experienced the treatment.

All the prisoners who stayed in the study were offered a basic package of 12 weekly group education/counselling sessions and a pre-release meeting with the study's counsellor to individually discuss resettlement plans. Beyond this basic package, they were randomly allocated to three different approaches to preparing for continued treatment on release, all implemented by staff from the in-prison methadone programme. A **counselling only** group was merely advised to seek publicly funded treatment in the normal way, which for prescribing-based and residential treatments entailed being placed on a waiting list. **Arranged transfer** participants had a place

arranged for them at the programme's community prescribing clinic and were advised to report there within 10 days of release to begin gradual methadone induction to at least 60mg daily over about three months. The **methadone in prison** group underwent this induction to a target dose of 60mg while still in prison, and were told to attend the community clinic the day after their release (the place was held for them for 10 days) for continued treatment.

Over the first three months after release, without a treatment slot waiting for them few offenders started treatment, more used illegal opiates and cocaine, and more committed crimes. The extra benefits of also *starting* methadone in prison were increased treatment uptake and a more than halved risk of re-imprisonment. The picture remained similar at six months after release, the main exception being that days spent back in prison were now virtually identical, regardless of the pre-release preparation.

The featured report extended the story to a year after release. As before, a clear and conclusive impact of starting methadone in prison was to promote treatment entry and retention on release. Over the 12 months, 70% of offenders prescribed methadone in prison started treatment in the community. Of those who started, on average each was in treatment for just under eight months. Corresponding figures for arranged transfer offenders were 54% and five to six months, and for counselling only offenders, 25% and three months.



Substance use outcomes were generally best after methadone in prison, worst after counselling only, with arranged transfer in between. Across all the 12-month follow-up measures including crime and employment, only in respect of urine test results at 12

months were the differences statistically significant. Details below.

At 12 months after release, two thirds of urine tests on counselling only offenders were opioid positive, and over the preceding year, on average they admitted to using heroin on 167 days. Corresponding figures for arranged transfer offenders were about half and 121 days, and for methadone in prison offenders, a quarter and 106 days. With respect to cocaine, at 12 months after release three quarters of tests on counselling only offenders were positive, and over the year they admitted to using cocaine on 77 days. Corresponding figures for arranged transfer offenders were two thirds and 53 days, and for methadone in prison offenders, well under half (43%) and 37 days.

Over the 12 months, on average counselling only offenders admitted to committing crimes on 107 days, arranged transfer offenders 65 days, and methadone in prison offenders 82 days. In each category from 50–60% had been arrested, and over the last month of the follow-up year they had been employed for on average 10 days. Four counselling only offenders died from opioid overdose over the following year, but none in the other two groups. The methadone induction regimen had no serious adverse effects.

For this cohort, the authors felt the most promising results were the ability of an in-prison methadone programme allied with an awaiting post-release treatment slot to foster continuity of treatment sufficient to result in substantial reductions in heroin and cocaine use.

FINDINGS Compared to just having a treatment slot arranged on release, starting methadone in prison meant that within the first month nearly another 20% of offenders took up that slot. Perhaps because they started treatment earlier, on average each was in treatment for a further two months or more. The result it seems was reduced heroin and cocaine use, but over the first year no documented impact on crime or employment. Such impacts may yet emerge over later years. It is likely too that reduced drug use (especially injecting) protected some of the offenders from disease. There is also a strong indication that ensuring seamless transfer to methadone saved lives, one of its primary justifications in the UK. Besides post-release benefits, within prison itself methadone programmes improve the climate and reduce drug use, injecting and infection risk behaviour.

A key issue is whether starting methadone in prison perpetuated dependence among people who would have sustained abstinence on release. On joining the study, offenders had on average been in prison for 20 months and had three to six months to serve, two years or more in all. This enforced lengthy break from drugs might have been an opportunity to reconstruct lives so the 'break' could continue on release. For an appreciable minority, prison plus counselling only was indeed followed by relatively prolonged abstinence from opiates. In the three months after release, a fifth of these offenders said they had remained opiate free without treatment or being reimprisoned. Over the initial six months, 17% had still avoided heroin use. The risk of perpetuating opioid dependence in this minority by facilitating methadone treatment must be set against the benefits of cutting heroin and cocaine use among the general run of patients. Given good access to housing, employment, psychosocial treatment, and other forms of good quality and attractive resettlement support, the balance of benefit may be tipped against initiating methadone in prison. Such supports are however in limited supply in Britain.

Conceivably the impact underpinning all the others was that more of the offenders

started on methadone in prison continued treatment immediately after release. Despite being selected for their interest in methadone treatment, nearly half the offenders who just had a slot awaiting them did not start treatment at all over the next 12 months, a figure almost entirely accounted for by their not linking with treatment on release. An optimistic interpretation is that having benefited from methadone in prison, offenders wanted to continue with their recovery on release; another is that leaving prison with a 60mg a day methadone habit, they faced an uncomfortable withdrawal unless they continued treatment. Even if this was the motivation, it did lead (presumably via treatment) to more advanced recovery in the form of reduced heroin and cocaine use, and the prisoners voluntarily put themselves in this position.

Prison methadone maintenance is clearly not a universally applicable treatment. Apart from other reasons for exclusion from the study, about half the prisoners were not interested in receiving methadone, perhaps reflecting the questionable reputation of methadone programmes among minority Americans. Relatively long sentences in the USA allow for therapeutic communities. Together with aftercare (especially if this is required as part of the sentence) these reduce drug use and crime. Such facilities are rare in British prisons, but there are a number of other less intensive and/or shorter term programmes which have yet to be adequately evaluated. According to a UN/WHO guide on opiate maintenance in prisons, none of the alternative treatments are yet as reliably effective due to their limited attraction to prisoners and high drop-out and relapse rates.

Methodological considerations include an excellent follow-up rate, giving confidence in the applicability of the findings to the Baltimore male prison population. However, results are likely to be highly dependent on the context. In Baltimore, applicants typically have to wait several months for methadone treatment and pay fees dependent on ability to pay. Absent these hurdles, more without a pre-arranged methadone slot might nevertheless have started treatment on release. The more clear-cut findings from urine tests seem undermined by the number of missed tests, but these were missing partly because they could not be obtained from people in hospital or prison, when they were in any event not free to use drugs. Unlike the offenders' own accounts of their substance use, which spanned the entire year, urine tests were a point-in-time snapshot at 12 months after release. If, as hoped, lengthy spells in treatment had progressively embedded a drug-free lifestyle, end outcomes represented by urine tests would (as was the case) have been expected to show a more clear-cut advantage for methadone in prison patients. The possibility that treatment durations at or approaching a year distanced offenders from drug use is consistent with the finding that only at the 12-month follow-up point did patients offered methadone treatment evidence reduced cocaine use.

Following policy commitments in Scotland and in England, access to maintenance prescribing has recently increased and throughcare from prison to the community continues to be a policy priority. How throughcare arrangements for the relatively new cohort of methadone-maintained prisoners are working in practice has yet to be documented. Prisoners released on licence can be required to attend certain treatment services, but this only applies to sentences of over a year. Apart from licence conditions, methadone-maintained offenders leaving prison have no automatic and immediate access to similar treatment in the community. Further policy considerations below.

In England throughcare is a particular responsibility of the new Integrated Drug Treatment System, backed in some areas by additional in-prison resources for transition planning. Throughcare guidelines stipulate that a release plan for drug misusing offenders must be drawn up in liaison with the community teams responsible for implementing it, including prison-gate contacts with priority offenders liable to relapse. Clinical guidelines for

prison treatment suggest that pre-entry opioid maintenance programmes should normally be continued in prison and that the treatment should be offered to dependent opiate users on short sentences. They also advise considering raising pre-release doses to previous maintenance levels as a form of post-release overdose protection for offenders prone to relapse. There is however no clear recommendation to consider initiating pre-release maintenance for longer term prisoners, though this was not ruled out by a recent government-commissioned report on prison drug treatment.

In Scotland throughcare has improved but remains patchy. Over the next few years transfer of prison treatment to the NHS is intended to help improve the situation. Currently Scotland's Throughcare Addiction Service attempts to cater for short-sentence prisoners without a licence condition, aiming to link them to community-based resources and to work with them for at least six weeks after release. Current practice in Scottish prisons is neither to continue nor to initiate opiate substitute prescribing in prison unless there is confirmation that a community prescriber will continue the treatment on release. Improved prison-community links consequent upon an expansion in the number of addiction nurses in prisons mean that continuity of treatment has substantially improved over recent years.

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