11.2 Methadone maintenance as low-cost lifesaver

Findings Compared to slow methadone detoxification, methadone maintenance is likely to prolong the lives of opiate-dependent patients at relatively little extra cost.

This conclusion derives from a study in San Francisco (*Additional reading*) which randomly allocated opiate addicts either to a year of methadone maintenance, or to stabilisation for four months then methadone reduction over the next two. In an attempt to boost outcomes, methadone reduction patients were required to attend for at least four hours of therapy and classes and were offered aftercare for the remainder of the study. Maintained patients were offered minimal support but still stayed far longer in treatment and (after the reduction group started to be withdrawn) used heroin less frequently.

The featured study projected forward heroin use figures and health care costs from the last six months of this study, assuming that they gradually converged to the overall average. Combining these with death rates expected at different levels of heroin use and methadone treatment uptake enabled the researchers to estimate average life expectancy and lifetime health care costs. Costs were slightly higher for maintained patients, survival slightly longer. On this basis, engaging the average patient in methadone maintenance rather than reduction would gain extra life-years at an extra cost of about $17,000 a year, well within the conventional $50,000 cost-effectiveness threshold. Maintenance remained cost-effective when assumptions made by the study were varied and life-years adjusted for presumed lower quality of life while using heroin or in methadone treatment.

In context The study joins others demonstrating that methadone maintenance is a cost-effective life extender compared to alternative treatments or none at all. Given this convergence, the conclusion can be considered a robust one.

Though often not implemented, achieving abstinence via methadone stabilisation and reduction is a common treatment goal in Britain. As in the featured study, compared to explicit and stable maintenance, the reduction approach is associated with poorer retention and, if doses *are* actually tapered, there is less reduction in heroin use.

Sometimes the advantages of explicitly maintenance regimes are at least partly due to their providing higher doses – not an issue in the featured study, where both regimes averaged over 85mg a day. However, they were capped at 100mg, potentially disadvantaging the maintenance regime; it can take far more than 100mg to curtail some patients' heroin use. Set against this is the possibility that preceding detoxification with several months on high doses of methadone consolidated a hard dependency to withdraw from, though the outcomes seem typical of outpatient detoxification.

The study's main strength is that randomisation eliminated the possibility that differences in outcomes were due to different patients choosing one treatment rather than the other. The main question mark is over the representativeness of the patients. Only a third of callers thought to match the required profile went on to enter the study. Though typically long-term addicts, they were relatively socially integrated and psychiatrically stable.

Practice implications Health services aiming to improve the life expectancy and quality of life of the majority of dependent opiate users would do well to focus extra investment on effective substitute prescribing programmes. Add to this the social benefits arising largely from reduced crime, and the argument becomes convincing for a major expansion of methadone treatment in Britain to make it accessible and attractive to the up to 4 out of 5 problem opiate users not currently in treatment. At the same time, steps must be taken to improve retention to the point where patients are ready to leave, to help them reach this point, but also to be prepared if necessary to maintain for life.

LINKS Nuggets 11.1 5.9 5.5 4.1 2.1

Featured studies Masson C.L. *et al*. "Cost and cost-effectiveness of standard methadone maintenance treatment compared to enriched 180-day methadone detoxification." *Addiction*: 2004, 99, p. 718–726. DS.

Additional reading Sees K.L. *et al*. "Methadone maintenance vs 180-day psychosocially enriched detoxification for treatment of opioid dependence. A randomized controlled trial." *Journal of the American Medical Association*: 2000, 283(10), p. 1303–1310. DS.

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