

National Evaluation of Pharmacotherapies for Opioid Dependence (NEPOD) Slide Presentation Package

Key Messages from NEPOD

Persons who are heroin dependent have impaired control over their use of heroin, indicated by continued use in the face of problems which they know (or believe) to be caused by heroin use – such as health, legal and interpersonal difficulties. By the time they seek treatment for their drug dependence, they have developed tolerance to the effects of heroin, and have typically increased their use to two or three injections per day. They can also suffer a severe (but not life-threatening) withdrawal if they abruptly stop opioid use¹.

There has been a steady increase in heroin use, and in dependent use, since the mid-1960s when heroin was first introduced into Australia. In the mid-1960s there were virtually no dependent heroin users². Thirty years later, in 1997, there were an estimated 74,000 dependent heroin users in Australia (estimated range 67,000 – 92,000), a number which had doubled over the preceding 15 years², and which has probably increased further over the past six years.

The seriousness of the heroin problem in Australia in terms of public health and public order is profound.

- The increase in dependent heroin use has been accompanied by an increase in the incidence of fatal heroin overdose³, leading to an unacceptable death toll of almost 10% of all deaths among young Australians aged between 25 and 34 years being due to heroin overdose.
- The rates of contraction of heroin-related infectious diseases, plus premature mortality from infectious disease and violence are high. U.S. studies that have followed dependent heroin users have shown that 20 years after first seeking treatment, one third are dead, 30% to 40% remain in treatment or cycle through treatment, heroin use and jail, and only one third become abstinent from heroin use^{4,5}. There are no similar Australian studies to date, but there is also no reason to presume the situation is different here; heroin dependence, once it becomes established, is a chronic and relapsing disorder.
- The cost of heroin-related crime in Australia has been estimated at between \$535 million and \$1.6 billion per annum⁶.

Being in treatment leads to less heroin use, lowered mortality rates, and reduced crime⁷⁻¹². However, in 1999, only an estimated 36% of dependent heroin users were in methadone treatment², with a small additional number in drug-free rehabilitation centres¹³. There is substantial potential to increase the reach and effectiveness of treatments for heroin use by increasing treatment recruitment up to 50% or more of regular dependent users. Such a rate of penetration has been achieved elsewhere (e.g., in Switzerland), and is obviously desirable in terms of the benefits that treatment provides, both to people who are dependent and to the community.

The 13 clinical trials included in the Australian National Evaluation of Pharmacotherapies for Opioid Dependence (NEPOD) Project recruited more than 1,400 opioid dependent participants into treatment¹⁴. NEPOD successfully integrated and analysed data from trials that evaluated a wide range of opioid dependence treatments (naltrexone, buprenorphine, methadone, LAAM).

The NEPOD Project has demonstrated that provision of opioid dependence treatment significantly reduces heroin use and associated crime and morbidity¹⁵. For example, heroin dependent participants who entered methadone, buprenorphine or LAAM maintenance treatment increased their number of heroin-free days from 3 days in the 28 days before entering treatment to 22 days in the sixth month of treatment. Over the same period, their criminal behaviour reduced by more than 50%, and their expenditure on heroin reduced by more than 75%. These Australian results are consistent with published international evidence^{1,7-12} regarding the effectiveness of treatment.

Treatment with naltrexone was less successful, with very few trial participants remaining in treatment for more than a few weeks. However, the small proportion who did remain in treatment achieved abstinence from heroin, and on that basis treatment with naltrexone may have an important, albeit limited role for people who are at a stage where complete abstinence is a realistic goal. These results and this role for naltrexone are consistent with international research and recommendations regarding this medication¹². As demonstrated by NEPOD, however, clinicians will need to alert naltrexone treatment patients in particular about the risk of heroin overdose after stopping naltrexone¹⁶. Although a resource intensive procedure, the NEPOD studies also demonstrated that the administration of naltrexone under sedation is effective in inducing people onto naltrexone maintenance.

NEPOD also showed that patients who undergo detoxification do not necessarily become abstinent from heroin, and benefit from being linked into ongoing intervention with other treatments. Detoxification is not sufficient as a 'stand-alone' treatment for heroin dependence, as people will generally return to regular heroin use without additional assistance. Detoxification is, however, an important first step in the treatment process, and is a way of bringing patients into contact with the health care system so that other treatments may be offered. To that end, NEPOD has shown that we now have a greater range of safe and effective withdrawal treatments that can be delivered in a variety of settings.

To prevent relapse, maintenance pharmacotherapies are usually required. Heroin dependence is a condition that is managed rather than 'cured' by a single treatment episode. For example, a person who uses heroin may require detoxification followed by a period of maintenance with methadone or buprenorphine before attempting abstinence either with naltrexone or through a drug-free residential program. Patients may engage in multiple treatment attempts over time, and may need to try several different treatment methods to control their heroin dependence.

Given the poor retention in some treatments (e.g., naltrexone), there is a need to consider the role of families and other support people in therapeutic alliances. In that sense, the pharmacotherapies assessed in NEPOD are best viewed as a part of a broader treatment system which includes drug-free residential treatments and other treatments. In order to increase the proportion of heroin users in treatment, in particular in these pharmacotherapies, availability of a range of treatments is essential to meet the differing needs of heroin users at different stages in their ongoing attempt to become abstinent from heroin.

However, treatment should be more than just medication, as managing the serious levels of psychiatric comorbidity (especially depression and anxiety disorders) and social adversity (unemployment and social marginalisation) that are found in this group of people will improve treatment outcomes and effectiveness. For most (but not all) patients, treatment can be effective in a GP setting as long as GPs are linked to specialist support - shared care is a possible effective model. More severely dysfunctional clients may be best suited for management in specialist care settings. To this end, comprehensive support and care need to be available for patients, and support and training need to be available for the medical practitioners who manage them.

References

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