EDITORIAL

Should We Prescribe Heroin? A Current Scottish Debate.

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Abstract

There have been recent calls from within both Scotland and England for the wider prescription of heroin to heroin addicts as a way of coping with our burgeoning drug problem and as a route to reduce drug related criminality. But how feasible is heroin prescribing in this context? This paper considers some of the existing research evidence relating to heroin prescribing and looks also at the ethics and practicalities of prescribing heroin to heroin addicts in Scotland. We conclude that whilst the evidence on the benefits of heroin prescribing is far from clear cut there is a case for mounting a Scottish trial of heroin prescribing. Such a trial would need to be tightly controlled and rigorously evaluated. It would need to show that heroin prescribing was associated not only with a comparable level of harm reduction, as methadone prescribing, but that it was also an effective route towards drug users' eventual recovery and drug cessation.

Introduction

Since the early 1980s Scotland has had a growing heroin problem. With over 51,000 adults estimated to be dependent upon the drug that problem is thought to be proportionately around one and a half times greater than in England. [1,2] The approach to dealing with this problem is essentially the same in Scotland as it is for the rest of the United Kingdom: a combination of law enforcement to restrict supply, education and information to discourage misuse and reduce harm, and treatment for users, sometimes combined with court orders when users have offended. The commonest form of treatment in Scotland is methadone maintenance, with approaching half of Scotland's 51,000 users being prescribed the drug.[3] However recent research has shown that many of those drug users receiving methadone within Scotland are continuing to use illegal drugs.[4]

In the light of the continued extent of the drug problem within Scotland, the persistence of around 300 addict deaths each year and continuing high levels of drug related crime there have been recent calls, including from the previous drugs minister (Dr Richard Simpson), for doctors to be allowed to prescribe heroin for those addicts who are failing on existing treatment programmes.[5] Such calls have also been made recently by senior police officers in England,[6] for example, from the Deputy Chief Constable of Nottinghamshire.

Whilst the various appeals to allow doctors to prescribe heroin to addicts are often presented in the media as a radical departure from current policy, in fact heroin prescribing has been a long standing element of the "English system" of drug treatment since the 1950s. Following the second Brain Committee (1965), United Kingdom doctors were required to obtain a licence to prescribe heroin to heroin addicts although it appears that the number of doctors licensed to prescribe heroin to addicts is very small in number. Metrebian for example, identified a total of 70 doctors currently holding Home Office licences allowing them to prescribe heroin to addicts; none of these were based in Scotland. [7]

Setting aside the question of how radical a shift in policy heroin prescribing to addicts would be, there clearly are enormous risks associated with any policy that involves providing individuals with the very drug that they have become dependent upon. But might those risks outweigh the potential benefits? To answer that question needs a careful weighing of the risks, and how they might be mitigated, against the potential benefits. Before looking at the pros and cons of heroin prescribing it is worth summarising the results of the small amount of research which has been undertaken on this topic.

Previous Research

To date there have only been a few studies that have looked at the impact of heroin prescribing. In London in the 1970s Hartnoll and colleagues randomly allocated 96 heroin addicts to receive either injectable heroin or methadone.[8] This study found that addicts prescribed heroin tended to remain in treatment for longer but they also tended to continue to use other drugs and to continue to inject. In the case of those on methadone the pattern tended to be one of either continuing to use a multitude of drugs or ceasing their drug use entirely. This study was enormously influential in making methadone rather than heroin the drug of prescribing choice for doctors' dealings with heroin addicts. Meterbian and colleagues undertook a 12 month follow-up study of 58 long term opiate addicts who were offered either injectable methadone or injectable heroin.[9] Somewhat surprisingly only two thirds of those offered heroin opted for this treatment with the remaining choosing methadone - indicating that by no means is it the case that all heroin addicts would even wish to be prescribed heroin were this to be more widely available. At the 21 month follow-up point the patients who were receiving heroin were more likely to have remained in contact with their treatment agency. There were, though no significant differences between the two groups in the level of their drug use and associated behaviours.

More widely reported than this London study are the various heroin prescribing studies undertaken in Switzerland and the Netherlands. In Switzerland, Uchtenhagen and colleagues carried out a series of studies in the mid to late 1990s comparing samples of drug users who were prescribed either smokable or injectable heroin, injectable methadone or injectable morphine. At the 18 month follow-up point those who were prescribed heroin had reduced levels of criminal behaviour and illegal drug use and improved social functioning. This study did not have a control group, nor were patients randomly assigned to receive heroin. As a result it is not possible to attribute the positive changes in drug users behaviour to the provision of prescribed heroin.[10,11,12] From the Netherlands, van den Brink and colleagues undertook a heroin trial and found that those drug users who were prescribed heroin were slightly less likely to be retained in treatment compared to those on methadone although the health of those addicts who received prescribed heroin was better than that of those addicts prescribed methadone.[13]

It is evident on the basis of the studies that have been carried out that heroin prescribing is a good deal more costly than methadone prescribing. According to the Center for Addiction and Mental Health, methadone prescribing is thought to cost between £1320 and £3550 per patient. Within the Swiss trial the costs of heroin prescribing were estimated at £8030,[10] whilst in the Dutch trial the costs of heroin prescribing varied between £9,775 to £17,109.[13] Whilst heroin prescribing to addicts is considerably more expensive than methadone prescribing the greatest element of that additional cost does not relate to the cost of the drug itself but to the administrative and support services required to safely provide heroin to addicts on a daily basis. Clearly these costs are going to vary considerably depending upon the numbers of individuals to whom heroin would be being prescribed and the circumstances within which such prescribing were occurring.

Having reviewed the existing global literature on heroin prescribing Stimson and Metrebian concluded that: "The evidence base (in relation to heroin prescribing) is relatively weak - with only a few studies and only four with control groups for comparison… A cautious assessment of the evidence suggests that heroin is potentially an effective treatment for some patients, but that this has not yet been conclusively proven."[14] In the remainder of this paper we consider the ethics and practicalities of prescribing heroin to heroin addicts in Scotland.

The Ethics and Practicalities of Prescribing Heroin to Heroin Addicts

Providing a powerful narcotic on a regular basis to addicts inevitably gives rise to concerns that doctors are not so much treating addicts as becoming their drug supplier. In doing so there is the fear that the doctor may actually be continuing rather than treating the individual's addiction. Whilst there will be clear fears in any system which results in doctors effectively supporting drug users' long term addiction it is also the case that in relation to methadone the case for long term prescribing has largely been accepted. There are though other risks associated with a policy of heroin prescribing. One of those risks has to do with the pressure that doctors may be placed under to provide, or to continue to provide, the drug by individuals who are motivated first and foremost by their own need to assuage their craving. At the moment we know relatively little about whether addicts have a ceiling in terms of the maximum amount of heroin they feel they need. As a result the pressures medical practitioners could be put under to prescribe ever larger amounts of the drug could be considerable. Given this risk and our lack of knowledge of the amounts of heroin that might be demanded, it might be wise to set firm and possibly arbitrary limits to the amount of heroin a doctor is able to prescribe to patients who are dependent upon the drug. A further concern in relation to heroin prescribing is the fear that such a strategy may undermine other treatment efforts with those who are dependent upon the drug. If an individual sees failure on these other programmes as a route to prescribed heroin there is a real possibility that this may strongly de-incentivise their commitment to these other treatment programmes.

So is the answer to eschew the provision of heroin to addicts? Not everyone thinks so. Recent reporting of apparently successful heroin trials in Switzerland, amongst other countries, suggests there might nevertheless be some carefully controlled scope for heroin prescribing.[15] The one thing we know that addicts want is heroin, and the state has access to heroin, which is of proper quality – pure, safe (to the extent that any powerful narcotic can ever be safe) and capable of being safely administered. Can these facts be used to meet the needs of drug users and the wider society?

In considering this issue the first question to ask is what would be the purpose of such a prescribing regime. It is an obvious, but sometimes overlooked, aim of drug policy that existing addicts should be helped to become free of drugs: regular drug use ruins health directly and through associated infections, makes daily life miserable, damages children and others in addict families, and adversely affects the wider community through crime and other anti social behaviour. But policy also aims to reduce the harm to the individual caused by their continued drug use, for example through the supply of clean injecting equipment, through information which explains the risks of different behaviours, or through stabilising addict lives and reducing the damage they do others.

Prescribing heroin can be ethically justified if it is a route to becoming drug free. This is not a self-evident proposition as heroin is a perniciously addictive drug: but after all, we already prescribe methadone for prolonged periods. This is a drug that is at least as addictive as heroin but whose main effect is surcease from craving symptoms. But the intention (and potential effect) differs in that the aim of methadone maintenance is to stabilise the addict so that the harms of his or her continuing drug use can be reduced. In relation to prescribing heroin there is likely to be greater public and professional acceptance of this strategy where it is seen as a route to drug users' eventual abstinence rather than a road of long term prescribing. In this sense there is likely to be greater acceptance of the strategy of methadone maintenance prescribing than there is likely to be for a strategy of long term heroin maintenance prescribing. There is some evidence that heroin prescribing may be an effective route to enable drug users to become drug free. However if this is not found to be the case more widely and the argument for prescribing heroin is principally made in terms of reducing the harm associated with the individual's continued drug use there is likely to be rather less support for a programme of long term heroin prescribing.

What sort of system might be devised to obtain these benefits but avoid the risks? Trials ought to have two aims: harm reduction and eventual cessation. Both should be addressed together. Unlike methadone maintenance, heroin administration should not be regarded as a pharmacological assistance to stabilise life while other programmes of support separately address underlying needs. Rather heroin prescribing would need to be seen as an integral part of a planned programme of reducing drug use and behaviour change. The powerful incentive to the individual of accessing a legal supply of the drug should be used to encourage positive behaviour. The programme should be wholly integrated, probably legally regulated, and time and use limited: it might have a strict limit of three years; it might be restricted to one attempt only and access to the drug of choice will limited to those who meet

strict behavioural criteria: no alternative drug use, greater order in their lives and (perhaps in time) employment or training as well as stable personal lives. Administration would be expensive but highly regulated, physically and legally, involving close cooperation of enforcement, medical and support agencies, with the availability of the drug determined by compliance with programme conditions rather than just apparent clinical need. The most difficult challenge would be one of identifying which addicts will (and will not) gain access to the programme. For that reason some form of strict procedure, quite possibly supervised by a court, though not necessarily after a criminal conviction, may be needed. In the first instance heroin should only be prescribed in circumstances where other treatments have manifestly failed.

The risk would have to be accepted that either during or after failure of such a programme addicts would return to the illegal market without their problem solved, but having had their habit satisfied for a period at public expense; conversely, if properly managed they will have had some element of stability in their lives and should have had health and other risks of harm to themselves and others reduced for that period.

In any programme of heroin prescribing, however, there is going to be a risk of individuals suffering a fatal drug overdose. At present we do not know enough about the mechanisms of drug overdose to be entirely confident about our ability either to predict those drug users at greatest risk of overdosing, or to entirely prevent such occurrences. Any programme of heroin prescribing is going to require the capacity to respond rapidly to a possible overdose. However it is almost inevitable that at some point an individual will die as a result of being prescribed the drug. In that event attention will inevitably come to be focussed upon the level of care exercised by those involved in the heroin prescribing programme with the question being asked whether those staff exercised an appropriate level of care in the way in which they made the drug available to the individual. Heroin prescribing, even where it may be associated with a clear reduction in individual's drug use, may still carry a significant risk for both the individual and any staff involved.

Conclusion

In the circumstances that Scotland faces today a case can be made for running a heroin prescribing trial: highly and perhaps legally constrained (the mechanism of the Drug Treatment and Testing Orders might offer a template), with a narrow gateway for access, heavily managed and wholly integrated (and by no means heroin maintenance by medical prescription). Any such trial would need to be rigorously evaluated in view of the very real dangers associated with prescribing heroin to known heroin addicts. The criteria for success would be that it offered at least as much harm reduction as methadone maintenance and a greater likelihood of eventual cessation. Such success might justify the substantial cost involved, and might point the way to a wider programme at a later stage.

References

1. Hay G, Gannon M, McKeganey N, et al. Estimating the National and Local Prevalence of Problem Drug Misuse in Scotland. Edinburgh: Scottish Executive Information Services Department, 2005. Available at http://www.drugmisuse.isdscotland.org /publications/local/prevreport2004.pdf (Accessed 21st August 2007)
2. Hay G, Mitcheson M, Battersby A, et al. Local and national estimates of the prevalence of opiate use and/or crack cocaine use (2004/2005) in Singleton N, Murray R, Tinsley L Measuring Different Aspects of Problem Drug Use: Methodological Developments. Home Office Online Report 2006. Available at http://www.homeoffice.gov.uk/rds/pdfs06/rdsolrl1606.pdf (Accessed 21st August 2007)
3. Scottish Executive. How Many People are Receiving Methadone Hydrochloride Mixture for Opiate Dependence in Scotland and What are the Prescribing Costs per Person? Edinburgh: Scottish Executive Information and Statistics Division. Available at http://www.drugmisuse.isdscotland.org/publications/local /isd_methadone.pdf (Accessed 21st August 2007)
4. McKeganey N, Bloor M, Robertson, M et al. Abstinence and drug abuse treatment: results from the Drug Outcome Research in Scotland study. Drugs; Education, Prevention and Policy 2006; 13: 537-550
5. Former Drugs Minister calls for Heroin on the NHS. Scotsman Newspaper 2006, June 6th.
6. Give Addicts Heroin Says Officer. BBC News 22 November 2007. Available at http://news.bbc.co.uk/1/hi/england/nottinghamshire /6172392.stm (Accessed 21st August 2006)
7. Metrebian N, Carnwath T, Stimson G et al. Survey of doctors prescribing diamorphine to opiate dependent drug users in the United Kingdom. Addiction 2006; 97: 1155-66
8. Hartnoll R, Mitcheson M, Battersby A et al. Evaluation of heroin maintenance in controlled trial. Arch Gen Psych 1980; 37: 877-84
9. Metrebian N, Shanahan W, Wells B et al. Feasability of prescribing injectable heroin and methadone to opiate dependent drug users: associated health gains and harm reduction, Med J Aus 1998; 168: 596-600
10. Uchtenhagen A, Dobler-Mikola A, Gutzwiller F. Medical prescription of narcotics: background and intermediate results of a Swiss national project. Eur Addict Res 1996; 2; 201-7
11. Uchtenhagen A, Dobler-Mikola A, Gutzwiller F. A programme for a medical prescription of narcotics. A synthesis of results. Eur Addict Res 1997; 3: 160-3
12. Uchtenhagen A, Dobler-Mikola A, Steffen T et al. Prescription of Narcotics for Heroin Addicts. Main Results of Swiss National Cohort Study. Volume 1. Basel: Karger, 1999.
13. Van den Brink W, Vincent M, Hendriks V et al. Medical Co-Prescription of Heroin. Two Randomised Controlled Trials. BMJ 2003; 310 (9 August) doi:10.1136/bmj.327.7410.310 Available at http://www.bmj.com/cgi/content/full/327/7410/310 (Accessed 21st August 2007)
14. Stimson G, Metrebian N. Prescribing Heroin. What is the Evidence? York: Joseph Rowntree Foundation, 2003. Available at http://www.jrf.org.uk/bookshop/eBooks/1859350836.pdf (Accessed 21st August 2007)
15. Nordt C, Stohler R. Incidence of heroin use in Zurich, Switzerland: a treatment case register analysis. Lancet 2006; 367: 1830-4.