

ACMD

Advisory Council on the Misuse of Drugs

Chair: Professor Les Iversen
Secretary: Zahi Sulaiman
1st Floor (NE), Peel Building
2 Marsham Street
London
SW1P 4DF
Tel: 020 7035 1121
ACMD@homeoffice.gsi.gov.uk

Lynne Featherstone MP, Minister for Crime Prevention
Home Office
2 Marsham Street
London
SW1P 4DF

6 November 2014

Dear Minister,

RE: Time-limiting opioid substitution therapy

In June 2014, the then Minister of State for Crime Prevention, Norman Baker MP commissioned the Advisory Council on the Misuse of Drugs (ACMD) to provide advice to the Inter-Ministerial Group on Drugs, which was exploring the question of whether or not people in treatment are maintained on opioid substitution therapy for longer than is necessary or desirable. In particular, the ACMD's Recovery Committee was asked to report on:

- whether the evidence supports the case for time-limiting opioid substitution therapy (OST); and if so, what would be a suitable time period and what would the risks and benefits be?
- Additionally, if this is not the case how can continuing opioid substitution therapy be optimised in order to maximise outcomes for service users?

I am pleased to enclose the first report on this topic from the ACMD's Recovery Committee, which has been published today and addresses the first component of this commission. The overall conclusion of this report is that the evidence does not support the case for imposing a blanket time limit on OST treatment for heroin users, and this approach is not advised by the ACMD. As evidence strongly suggests that time limiting OST would result in the majority relapsing into heroin use and may have

significant unintended consequences including increasing: drug-driven crime (and national crime statistics); heroin overdose death rates; and, the spread of blood-borne viruses including hepatitis and HIV. Those implementing this approach could also face medico-legal challenges.

We concluded that OST can be a very helpful part of treatment and recovery for those with heroin dependence, but it is unhelpful to focus on the medication alone and if heroin users are receiving 'medication alone' without concomitant psychosocial interventions and recovery support – this approach is not in line with national guidelines and limited recovery outcomes are likely.

The report provides details of further conclusions reached and the underpinning evidence. The ACMD wishes to stress it fully supports the drive for recovery-orientated drug treatment as part of the drug strategy.

The ACMD's Recovery Committee welcomes an opportunity to examine in greater detail, the second component of this commission in 2015, which will further consider how to improve outcomes for service users in OST. We will report on this later in 2015.

We welcome an opportunity to discuss this report with you in due course.

Yours sincerely,



Professor Les Iversen
(ACMD Chair)



Annette Dale-Perera
(Co-Chair of the
ACMD's Recovery
Committee)



Richard Phillips
(Co-Chair of the
ACMD's Recovery
Committee)

CC: Rt Hon Theresa May MP, Home Secretary
Rt Hon Jeremy Hunt MP, Secretary of State for Health
Jane Ellison MP, Parliamentary Under Secretary of State for Public Health

Time limiting opioid substitution therapy

THE QUESTION POSED TO ACMD RECOVERY COMMITTEE ON BEHALF OF THE INTER-MINISTERIAL GROUP ON DRUGS

“Consider the available evidence on whether or not people in treatment are maintained on opioid substitution therapy for longer than is necessary or desirable. Does the evidence support the case for time limiting opioid substitution therapy, if so what would a suitable time period be and what would be the risks and benefits? If not, how can opioid substitution therapy be optimised to maximise outcomes for service users?”

SUMMARY ANSWER

1 Background

1.1 What is OST?

Opioid substitution treatment (OST) is a type of treatment for those with heroin dependence. It includes the prescribing and administration of a pharmaceutical opioid as a ‘substitute’ for illicit opioids, in the context of care-planned treatment with psychosocial and recovery interventions, and regular review. The same medicines (methadone and buprenorphine) are used in both detoxification and substitution regimens.

According to UK clinical guidelines OST is designed to:

- Reduce or prevent withdrawals that typically lead to further use of illicit heroin
- Provide an opportunity to stabilise drug intake and lifestyle while breaking with illicit drug use and associated unhealthy risky behaviours (including injecting)
- Promote a process of change in drug taking and risk behaviours
- Help maintain contact and offer an opportunity for therapeutic work with a patient or client

UK guidelines also acknowledge there is a hierarchy of goals of drug treatment from reducing drug-related problems to abstinence, and that treatment goals should depend on the motivation and circumstances of each individual. They recognise some people may be able to commit to a determined effort to become abstinent (and the challenge then is to help the patient maintain and often-fragile abstinence) while others may be unable or unwilling to do so, but may be able to make changes such as reducing risk behaviours.

The most common medicine used in OST in the UK is oral methadone, but there is also a rapidly increasing experience with buprenorphine, and buprenorphine in combination with naloxone (to deter injecting). In Britain, injectable opioids – such as diamorphine (pharmaceutical heroin) – have also been prescribed, but are only necessary for a minority of those who failed to benefit from OST using oral preparations.

OST should be seen as a stepping stone on a path to overcome heroin dependency and achieving recovery. The provision of OST medication in itself will not enable an individual to achieve a full range of recovery outcomes. However, there is international consensus, and a strong evidence base, supporting the effectiveness of OST in the reduction and cessation of heroin use, the reduction of drug injecting and related blood-borne viruses and reducing drug-driven crime. Evidence is strong that OST maintenance programmes with psychosocial and recovery components have greater impact and can enable individuals to achieve a wider range of recovery

outcomes.¹ Stabilisation on OST can provide a platform for people to increase their recovery capital and develop a healthier lifestyle. NICE's 2007 review of the effectiveness of methadone and buprenorphine maintenance concluded that treatments involving both medicines were effective in treating opioid dependence, based on a synthesis of randomised trials, observational evidence and expert opinion.²

1.2 What are the concerns about OST?

Drug treatment, and especially OST for heroin users, rapidly expanded between 2003 and 2009 in line with the updated drug strategy 2002.³ The 2010 Drug Strategy⁴ recognised the previous progress made to build the capacity of drug treatment but outlined more ambition for those in drug treatment and an 'ultimate goal' to enable individuals to become free from their dependence – echoing evidence that many people starting drug treatment express a wish to not be dependent on drugs in the long term. It recognised OST has a role to play in the treatment of heroin dependence both in stabilising drug use and supporting detoxification, and that medically-assisted recovery can, and does, happen: "There are many thousands of people in receipt of such prescriptions in our communities today who have jobs, positive family lives and are no longer taking illegal drugs or committing crime." However, there was also a criticism that too many people currently in OST had halted (or were 'parked') in their recovery journey and called for this to stop. The strategy called to ensure that those on OST engage in recovery activities, that more leave treatment free of their heroin dependence, and that they achieve wider recovery goals including good health, housing and employment.

1.3 How many people are on OST?

In 2011/12 in England, there were 197,110 people in drug treatment, of which 159,542 were in treatment for heroin dependence.⁵ Of these 146,100 were in receipt of some kind of OST. In the same year, there were 720 in OST in Northern Ireland and in 2,151 in Wales.⁶ The latest available data for Scotland showed 22,224 in OST in 2007/08.⁷

Evidence from national prevalence data⁸ and treatment data⁵ indicates that the number of heroin users in England is reducing, particularly among young adults. The OST treatment population in England in 2014 is an ageing, older cohort, often unemployed for many years and with long-term health and social problems.

2 Time in OST

2.1 What time in OST is necessary to benefit?

It may be helpful to understand what the clinical guidelines and evidence says in relation to the lengths of time required for OST to have a beneficial impact. UK clinical guidelines⁹ and NICE guidance¹⁰ drew on a myriad of studies and clinical experience to reach the following conclusions:

- Induction on to a correct dose of OST (to stop withdrawal) can take 2-4 weeks before stabilisation occurs.
- There are no recommended time frames for OST maintenance given in UK clinical guidelines, which state the decision to maintain a patient on 'long term' OST should be an active agreement between a patient and clinician. Where it happens OST should be part of a broader program of care planned support and reviewed at regular intervals. Similar national guidelines are in place in Canada¹¹ and the USA¹², though we are aware some Medicaid programmes time limit OST in some states.
- Detoxification from heroin in community settings normally takes around 12 weeks of gradually reducing doses. In-patient detoxification from opioid can take up to 28 days.
- Many people agree with their prescriber to reduce doses slowly in the run up to detoxification.
- Following detoxification from OST or heroin, six months' recovery support is recommended by NICE to reduce the risk of relapse to illicit heroin use.

There is international research evidence that increased length of time in OST is associated with improved treatment outcomes (including reduced use of other opioids and reduced criminal activity) and short-term methadone maintenance treatment is associated with poorer outcomes.¹³ Similarly USA research indicates that a longer time in OST is significantly associated with favourable outcomes.¹⁴ A study following people on from a methadone programme over 30 years showed that the 40% who had achieved stable remission had spent between five to eight years in OST.¹⁵

The English government national target on retention in drug treatment was based on evidence that heroin users required at least 12 weeks in OST to derive any lasting benefit from that treatment.¹⁶ Some USA authors are stating that the minimum time to achieve benefit from an OST maintenance program is one year as longer retention in OST (up to one year or more) consistently shows better – and better sustained – post treatment outcomes.^{17 18}

2.2 What time in OST is desirable?

ACMD RC wish to comment that desires, hope and promotion of aspirations for all those with heroin dependence to achieve recovery outcomes is welcomed as an essential component to recovery-orientated drug treatment.

Evidence suggests that service users have a range of opinions on whether they are maintained on OST for too long or not. Neale¹⁹ reports service users think that OST has positively affected people's lives by stabilising them and the vast majority of those on OST value the ability of methadone to reduce illicit drug use, to decrease drug-related harm and to prevent crime. Other studies indicate service users feel they are presented with barriers that make being a methadone patient time consuming and stigmatising.²⁰ Some worry that methadone is addictive and may cause problems similar to, or worse than, heroin.¹⁹ Some studies suggest that the wish of patients to reach abstinence from OST is underestimated²¹ though one study showed that under half of respondents (42.5%) receiving methadone stated that they hoped to achieve abstinence compared to between 70 and 80% of people in other treatment types.²²

A recent study of 30 heroin users in treatment in England looked at whether or not recovery-oriented treatment might be prompting heroin users prematurely into detoxification and abstinence programmes.²³ All participants stated they wanted to be free from heroin and prescribed substitute medicines. Individuals were often impatient with the detoxification process and some reduced dosages of substitute medication faster than prescribers recommended, however, this often resulted in cross addiction, relapse and slower recovery attempts. Participation in residential rehabilitation helped clients realise that recovery required time and effort. Authors concluded that recovery-oriented treatment can sometimes prompt heroin users prematurely into detoxification and abstinence programmes with negative consequences, and that the experiential knowledge of heroin users who have personally attempted recovery is a crucial resource for both those contemplating their own recovery and those advocating recovery-oriented services.

2.3 What are current patterns of length of OST in the UK?

Evidence has been drawn from two main sources, a published analysis of the national drug treatment data set 2005-11, and a bespoke analysis for this report of the same data set of those in OST 'prescribing' – both relate to England. No current data on length of time in drug treatment or OST was available from Wales, Scotland or Northern Ireland.

a) Analysis of English treatment data 2005-11 (NTA 2012)²⁴

A total of 341,741 unique individuals were in drug treatment in England between 2005 and 2011. Of these, two-thirds (229,788) were heroin users. The median length of contact with treatment system for heroin users was about four years – though this may not have been continuous. A distinction was found between those heroin users who left the treatment system and did not return, and those still in contact with the treatment system at the end of the study period.

- Around half of heroin users left treatment during this period and did not return. This group had typically spent two years in and out of treatment.
- The majority of all people who were still in treatment were a mix of recent entrants and those known to treatment for some time. The majority had several treatment journeys, with one-third going in and out of drug treatment at least three times.
- Of all heroin users in the analysis, about one in ten (20,876 individuals) had been in long-term continuous treatment.

The analysis also showed that across the six years of the study, the number of new heroin users starting treatment fell from an average of a thousand a week to a thousand a month. The rate of heroin users completing treatment increased gradually, so that by 2011 one in five of those starting treatment for the first time were completing treatment drug free. Furthermore, as fewer treatment-naive people presented, the English treatment population demographic changed. By 2011 an increasing proportion of older heroin users, who were in treatment longer, more complex to treat and who statistically find it more difficult to complete treatment, were present.

b) Bespoke analysis of five years' follow-up data on heroin users in OST in England to inform IMG

This analysis looked at the 50,224 who started a treatment episode of OST in 2007/08 to 2012/13. The 'average' (median) duration of uninterrupted OST (from the start to the end of the initial OST episode) was 297 days. Almost four out of ten (39%) stopped OST within 6 months, just over half (55%) stopped OST within one year, 69% stopped OST within one to two years and 85% stopped OST within five years.

Almost half of patients (45%) had been in OST before. Just over half (53%) had multiple episodes of OST over the five-year follow-up, reflecting the relapsing nature of addiction. Just under half (47%) had just one uninterrupted episode of OST, the 'average' (median) duration of which was just over two years (764 days). A minority (15%) of patients remained in uninterrupted OST for five years.

c) OST use is episodic for most

The two studies above indicate that the current pattern of OST use in England is episodic and marked with periods of OST, attempts at abstinence or drop-out, relapse and return to OST. OST use is episodic and relatively short for the majority. Continuous, uninterrupted, OST is evident in a minority of cases in England. The 'being parked' analogy may not be correct: most people get out of the car and walk away.

A small minority 10-15% have been in continuous OST for 5 years or more. A larger minority may not be in OST long enough to derive long-term benefit.

International evidence indicates similar trends in other countries. Long-term studies of people in methadone maintenance programmes show that multiple treatment episodes are normal before an individual becomes free from dependence.^{25 26} An American study found people had an average of over six treatment admissions, regardless of relapsing remission or continued use of illicit heroin.¹⁴

3 Evidence of the impact of time-limited OST

There is evidence that time limiting OST would have serious negative unintended consequences and very little evidence that it would be beneficial.

3.1 There is strong evidence that enforced detoxification from heroin or time limiting OST would lead to increased rates of relapse

- There is strong evidence that the course of heroin dependence is prolonged and relapse is common after leaving treatment – even if a service user wants to achieve abstinence.^{27 28}

- There is limited but compelling evidence from the USA that the introduction of time-limits on OST is related to high rates of relapse to opioid use and other unintended consequences: a review of 20 studies²⁹ showed high rates of relapse to opioid use after methadone treatment was discontinued and increased opiate use during mandatory tapering of prescriptions.³⁰ Furthermore, clinics oriented to time-limited treatment as opposed to long-term maintenance reported a higher rate of illicit opiate-positive clients.³¹

3.2 There is strong evidence that withdrawal of OST programmes would increase rates of acquisitive crime

- There is evidence that withdrawal of OST programmes in California, USA was associated with increased rates of crime, drug dealing, and heroin users' contact with the criminal justice system.³²
- There is evidence that implementation of time-limited OST could have a detrimental impact on crime in the UK. Two recent analyses found that the rise in heroin use accounted for 40% of the rise in acquisitive crime in England and Wales from 1991 to its peak. Similarly, the provision of OST is thought to be associated with 25-33% of the fall in some types of acquisitive crime. Time limiting OST is therefore likely to significantly increase acquisitive crime.³³

3.3 There is strong evidence that time limiting OST would increase the spread of blood-borne viruses (BBV)

There is good research evidence that the provision of OST (particularly in combination with needle and syringe exchange) can prevent the spread of HIV and hepatitis.

- Cessation of OST can lead to an increased risk of BBV transmission and overdose and that treatment orientated to rapid abstinence produces worse outcomes than treatment initially orientated to maintenance.¹
- Increasing OST provision has a positive impact on reducing the spread of blood borne viruses. There is good evidence to show that retention in OST reduces injection frequency³⁴, and, when combined with the availability of needle and syringe programmes, reduces the risk of BBV transmission³⁵, in particular hepatitis C virus transmission among injecting drug users.³⁶ OST also reduces the risk of BBV transmission in prisons.³⁷
- There is strong evidence that OST can prevent the spread of HIV infection.³⁸

3.4 There is strong evidence that time limiting OST would increase the rate of overdose deaths

There is strong research evidence that being in OST is protective against heroin overdose and ex-heroin users face significant increased risk of overdose death after termination of OST, particularly enforced OST or heroin detoxification.

- Research indicates that the risk of heroin overdose death is reduced greatly during OST^{39 40}, but then doubles following the conclusion of OST detoxification programmes⁴¹, and expanding OST can reduce the overall rate of overdose deaths in the community.⁴² OST in prison is thought to reduce self-inflicted death at the start of imprisonment⁴³ and OST prior to prison release can reduce the high risk of fatal overdose during the first month of liberty and subsequently.^{44 45}
- In the USA ending OST programmes has greatly increased death rates among heroin users following discharge from OST.²⁹

3.5 There is evidence that a blanket policy of time limiting OST would lead to medico-legal challenges and may not be implementable

OST is recommended by NICE² and UK clinical guidelines.⁹ As such, prescribers (usually but not exclusively doctors) have clear guidance from the General Medical Council (GMC) to "provide effective treatments based on the best available evidence".⁴⁶ The guidance goes on to say "If patients are at risk because of inadequate premises, equipment or other resources, policies or systems, you should put the matter right if that is possible.

You must raise your concern in line with our guidance and your workplace policy". Time limiting OST would put a doctor in a position where they are ignoring the guidance from their professional regulator, and it is our expert opinion that many prescribers would be reluctant to implement such a policy against their professional judgment, based on individual clinical assessment. They might find alternatives such as putting patients on very slow detoxification regimens. This could result in ineffective low-dose OST and potentially create an 'underground' prescribing system and make it difficult for quality controls to be put on the treatment.

There also may be medico-legal challenges if OST was time limited or contracted to be provided outside NICE guidelines. In 2006 there was a legal challenge from a group of 200 ex-prisoners who claimed they had been given inadequate treatment for opiate withdrawal in prison. The Home Office settled out of court and had to pay damages.

There also might be legal challenges on the grounds of discrimination if OST was restricted. In the USA, the Legal Action Centre (2011) concluded that denying access to OST in the criminal justice system, as part of a blanket prohibition or without individualised evaluation, violated the Americans with Disabilities Act and the Rehabilitation Act. They argued that attempts to justify denied access to OST on the grounds that it is "substituting one addiction for another" or is not a valid form of treatment should not defeat a claim under the Acts, as such views run counter to objective evidence concerning treatment for opiate addiction. Furthermore they advised that denial of access to OST pursuant to a larger policy prohibiting the use of any prescribed controlled substance is also likely to violate the Acts, due to their disparate impact on opiate-addicted individuals receiving or in need of OST.

4 Conclusion

The overall conclusion of the ACMD Recovery Committee is that the evidence does not support the case for imposing a blanket time limit on OST treatment for heroin users, and this approach is not advised by the ACMD.

Evidence strongly suggests that time limiting OST may have significant unintended consequences including increasing drug-driven crime (and national crime statistics), increasing heroin overdose death rates and increasing the spread of blood-borne viruses including hepatitis and HIV. Those implementing this approach could also face medico-legal challenges.

Rates of relapse are high when heroin users voluntarily detoxify and complete OST, illustrating the difficult, relapsing nature of heroin addiction and the challenge we face in enabling heroin users to achieve a range of recovery outcomes – particularly with our ageing heroin population with limited recovery capital. The current trends of use of OST indicate that the majority of heroin users are not 'parked' on OST for long periods of time. Use of OST appears to be similar to use of heroin for the majority: that is, episodic and characterised by periods of OST, attempts at abstinence, relapse and return to OST.

We are concerned that more individuals appear to be in OST for too short a time to benefit than are in OST for more than five years. For those who need OST, access should not be limited, but rather enhanced. It is therefore crucial that we explore why people drop out of OST, particularly where their discharge is unplanned.

The ACMD notes that there is strong evidence that OST can be a very helpful part of treatment and recovery for those with heroin dependence, but thinks that is unhelpful to focus on the medication alone. We recommend continued support for high quality OST with comprehensive psychosocial and recovery interventions which evidence shows is more likely to support individuals ultimately to achieve abstinence and other recovery outcomes. We note that if heroin users are receiving 'medication alone' without concomitant psychosocial interventions and recovery support – this approach is not in line with national guidelines and limited recovery outcomes are likely.

The ACMD Recovery Committee wholly supports a government push for 'culture change' and implementation of recovery-orientated drug treatment systems for those with heroin dependence. As outlined in our earlier report, an approach which enables those with heroin addiction to build social, personal, health and economic capital is associated with greater success in achieving a range of recovery outcomes. Our earlier report also clarified that different populations of those dependent on drugs and alcohol have different recovery potential, especially those "with severe and complex dependence on heroin, crack or alcohol and other co-existing problems acquired prior to dependence or during dependence". There is growing evidence that younger people coming into treatment more recently complete treatment quicker and do not re-present.⁵ OST and other interventions should be targeted and available to these different populations as appropriate. Our next report, on the second part of IMG's commission, will further consider these issues.

In the first instance, we support and agree with the work of the group chaired by Professor John Strang and welcome an opportunity to comment on how to maximise the benefits of OST further in a future submission to IMG.

APPENDIX: EVIDENCE UNDERPINNING THE SUMMARY ANSWER

1. Heroin dependence and recovery

There is strong research evidence from multiple studies that indicate that outcomes from heroin dependence are less common and less stable than drug recovery outcomes from most other substance addictions.

- A 33 year follow-up study found half of heroin users had died. Of the remainder, 43% had been stably abstinent for five years or more.
- A 30-year study of heroin users discerned four distinct groups of survivors: 25% had rapidly decreased heroin use and quit ten to 20 years from initiation; 15% achieved a more moderate decrease before quitting after ten to 20 years; 25% achieved a gradual decrease in heroin use over the 30 years; and 25% did not reduce their heroin use at all, and were still using after 30 years. The 40% who attained stable remission (not meeting criteria for dependence) had spent five to eight years in opioid substitution treatment prior to quitting.
- Multiple studies also indicate that those who are dependent on heroin and crack cocaine have poorer drug recovery outcomes than those who are dependent on either of these drugs alone.

2. England OST cohort study of those starting OST treatment in 2007/08 (PHE)

Summary

National data (NDTMS) indicates that a significant proportion of the current population in treatment for heroin dependence has been in receipt of OST for a long period. However, this gives a misleading impression of OST duration because patients with the most complex needs, for whom long-term OST is indicated, accumulate within the system.

A five-year follow-up analysis based on 50,224 opioid users who started a new episode of prescribing treatment (henceforward OST) in 2007/08,^a conducted by PHE, provides a more realistic estimate of the duration of OST that a patient might expect on commencing pharmacotherapy. It demonstrates that the 'average' (median) duration of uninterrupted OST (from the start to the end of the initial OST episode) was just 297 days: 55% ceased OST within one year (including 39% within six months) and a further 30% within one to five years (including 14% within one to two years).

Shorter periods of OST appeared to be associated with leaving treatment in an unplanned way (i.e. dropping out or treatment being withdrawn); this means that treatment was interrupted before it had finished. Among the sub-group that left treatment (n=42,526): 36% of those with an unplanned treatment exit (n=18,193) received OST for three months or less, compared to only 22% of those who left in a planned way (n=24,333). However, even for those with a planned discharge, the initial OST episode usually (58%) lasted for less than one year.

Many of the patients (45%) had been in OST before and many (53%) had multiple episodes of OST over the five-year follow-up, reflecting the relapsing nature of addiction. Given the known risks associated with leaving treatment, we should consider whether the needs of those patients with multiple OST episodes might, in some cases, better be met by more consistent, longer-term, OST. The 'average' (median) duration of uninterrupted OST for patients who experienced only one episode of OST (47%) was just over two years (764 days) and 15% of patients remained in uninterrupted OST for five years.

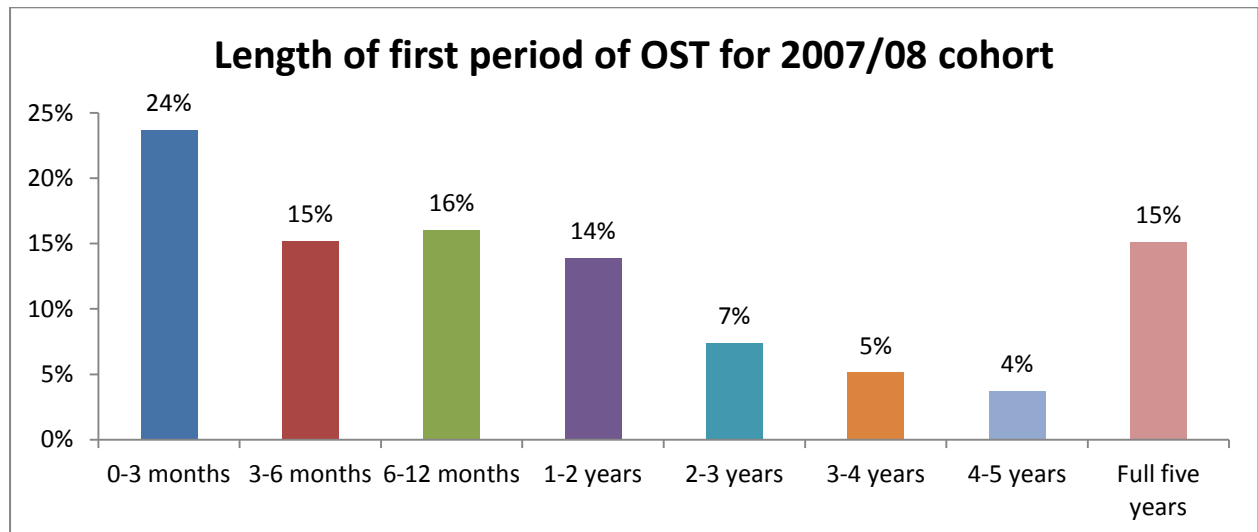
^a This analysis requires the use of historical data. Subsequent developments in the treatment system and the emphasis on recovery as a treatment goal may have resulted in a reduction in average prescribing duration compared to that observed during the period studied here, but insufficient time has elapsed to enable proper assessment of this.

PHE analysis: Overview and method

In 2007/08, 50,224 opiate users started a new period of OST. A period of OST is defined here as continuing as long as the person remains continuously in OST – this may either be within a single OST modality or a series of OST modalities received in sequence.

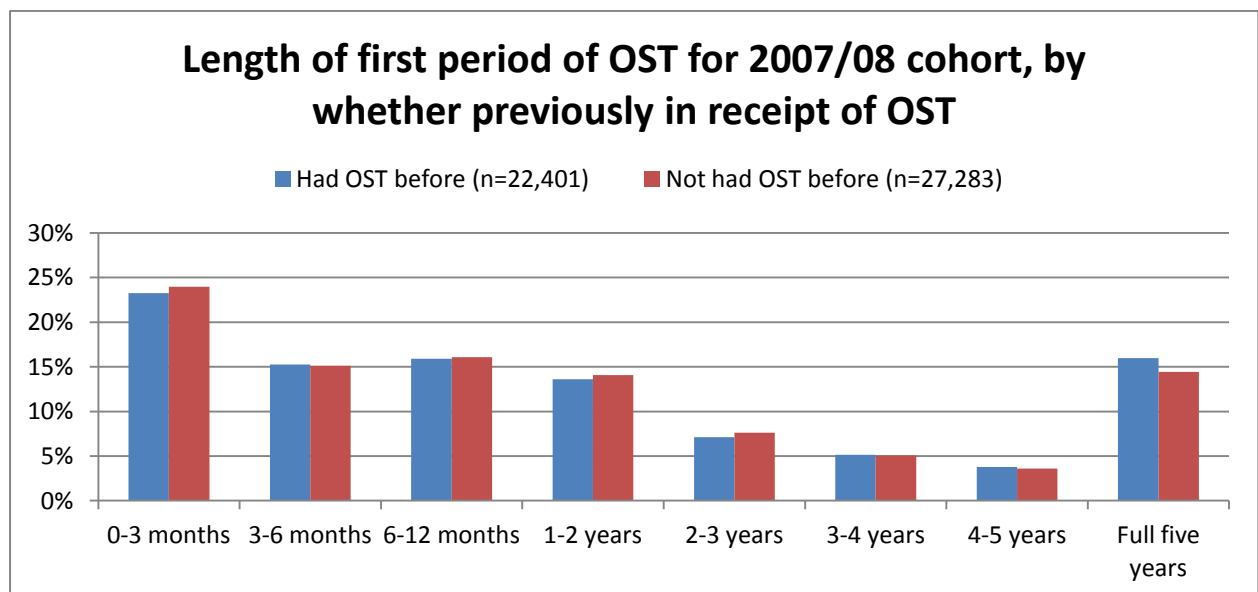
These individuals were followed up for up to five years from the start of their first new period of OST in 2007/08. The median length of the first OST received was 297 days (slightly under 10 months).

The graph below shows the breakdown of individuals in OST by the length of the first period of OST received. This shows that 15% of this cohort (n=7,586) were retained in the same OST for the full five year period.



Previous OST treatment

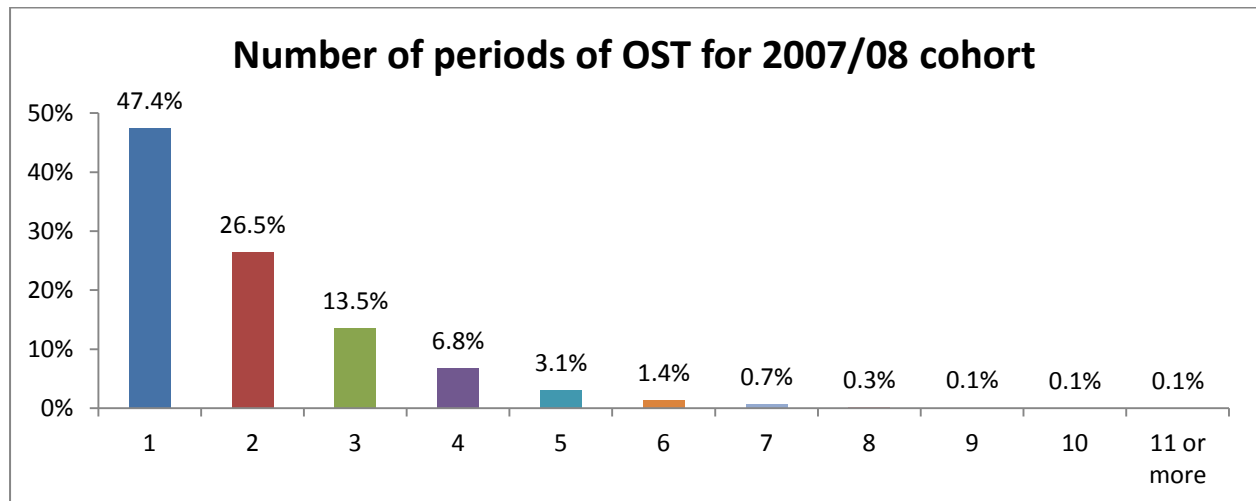
Of the cohort, 22,401 (45%) had previously been in receipt of OST prior to their first new period of OST in 2007/08. The graph below shows that there was very little difference between those in receipt of OST previously and those not in terms of the length of the first period of OST received.



Returns to OST

47% of the cohort (n=23,818) had only one period of OST in the five year follow-up period, with a median of 764 days (just over 25 months) in OST. The 7,586 individuals who remained in OST throughout the five year period make up 35% of this group.

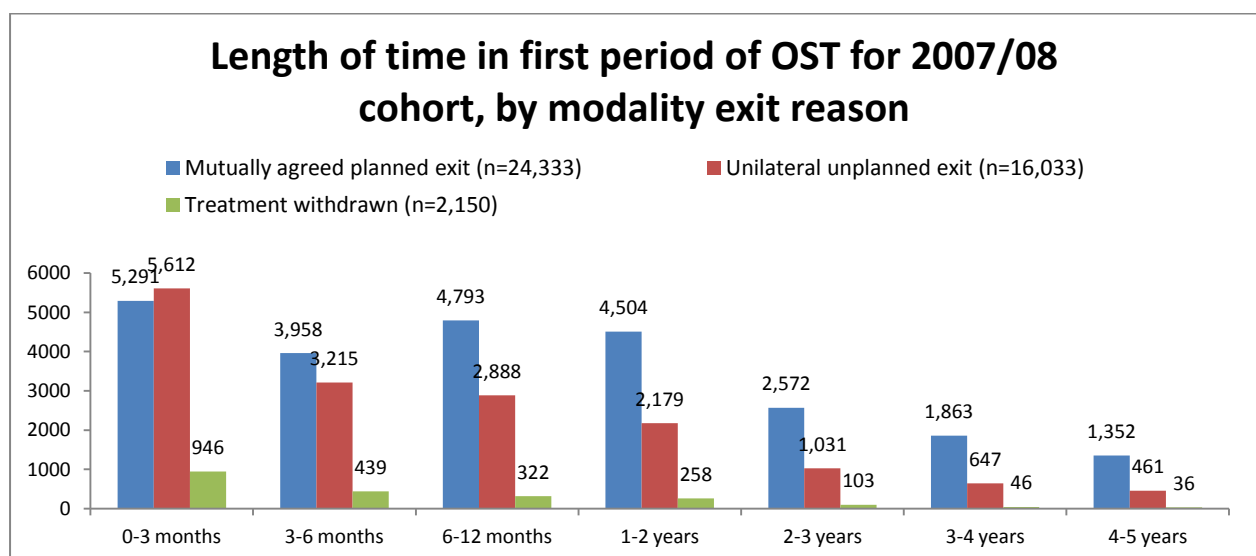
The graph below shows the breakdown by number of periods of OST received in the five year follow-up period. 26% had two periods of OST, 14% had three, 7% had four, 3% had five and a further 3% had six or more.



Breakdown by modality exit reason

It is also important to consider in this analysis whether the person completed their OST treatment, as for those who left in an unplanned way this would mean that the intention was that they received OST treatment for longer.

The graph below compares the time spent in the first period of OST starting in 2007/08 among those who left OST treatment in a planned way (n=24,333) to those who left unilaterally (n=16,033) or from whom treatment was withdrawn (n=2,150). 35% of those who left in a unilateral unplanned way and 44% of those who had treatment withdrawn left OST within 3 months, compared to 22% of those who left in a planned way. This should be considered when interpreting the proportions in the overall analysis.



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