

Drug misuse in over 16s: opioid detoxification

Clinical guideline

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Your responsibility

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the [Yellow Card Scheme](#).

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should [assess and reduce the environmental impact of implementing NICE recommendations](#) wherever possible.

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This guideline is the basis of QS23.

Overview

This guideline covers helping adults and young people over 16 who are dependent on opioids to stop using drugs. It aims to reduce illicit drug use and improve people's physical and mental health, relationships and employment.

NICE has also produced a [guideline on drug misuse in over 16s: psychosocial interventions](#).

Who is it for?

- Healthcare professionals
- Commissioners and providers
- People who work in specialist residential and community-based treatment settings
- People who work in prisons and criminal justice settings
- Adults and young people over 16 who misuse opioids and their families and carers

Introduction

This guideline makes recommendations for the treatment of people who are undergoing detoxification for opioid dependence arising from the misuse of illicit drugs. It is concerned with opioid detoxification in community, residential, inpatient and prison settings, and will refer to the misuse of other drugs such as benzodiazepines, alcohol and stimulants only in so far as they impact on opioid detoxification. The guideline does not address the particular problems of detoxification of pregnant women and the related management of symptoms in neonates whose mothers misused opioids during pregnancy.

Opioid detoxification refers to the process by which the effects of opioid drugs are eliminated from dependent opioid users in a safe and effective manner, such that withdrawal symptoms are minimised. With opioids, this process may be carried out by using the same drug or another opioid in decreasing doses, and can be assisted by the prescription of adjunct medications to reduce withdrawal symptoms.

Opioid misuse is often characterised as a chronic condition with periods of remission and relapse. Although abstinence may be 1 of the long-term goals of treatment, it is not always achieved. However, detoxification is a key stage in achieving abstinence for people who are opioid dependent.

Pharmacological approaches are the primary treatment option for opioid detoxification, with psychosocial interventions providing an important adjunct.

In order to ensure that all people to whom this guidance applies obtain full benefit from the recommendations, it is important that effective keyworking systems are in place. Keyworking is an important element of care and helps to deliver high-quality outcomes for people who misuse drugs. Keyworkers have a central role in coordinating a care plan and building a therapeutic alliance with the service user. The benefits of a number of the recommendations in this guideline will only be fully realised in the context of properly coordinated care.

This guideline should be read in conjunction with the [Department of Health's Drug misuse and dependence: UK guidelines on clinical management](#), also known as the 'Orange Book', which provides advice to healthcare professionals on the delivery and implementation of a broad range of interventions for drug misuse, including those interventions covered in the present guideline. For more information, see the [Office for Health Improvement and](#)

Disparities' alcohol and drug misuse prevention and treatment guidance.

Key priorities for implementation

Providing information, advice and support

Detoxification should be a readily available treatment option for people who are opioid dependent and have expressed an informed choice to become abstinent.

In order to obtain informed consent, staff should give detailed information to service users about detoxification and the associated risks, including:

- the physical and psychological aspects of opioid withdrawal, including the duration and intensity of symptoms, and how these may be managed
- the use of non-pharmacological approaches to manage or cope with opioid withdrawal symptoms
- the loss of opioid tolerance following detoxification, and the ensuing increased risk of overdose and death from illicit drug use that may be potentiated by the use of alcohol or benzodiazepines
- the importance of continued support, as well as psychosocial and appropriate pharmacological interventions, to maintain abstinence, treat comorbid mental health problems and reduce the risk of adverse outcomes (including death).

The choice of medication for detoxification

Methadone or buprenorphine should be offered as the first-line treatment in opioid detoxification. When deciding between these medications, healthcare professionals should take into account:

- whether the service user is receiving maintenance treatment with methadone or buprenorphine; if so, opioid detoxification should normally be started with the same medication
- the preference of the service user.

Ultra-rapid detoxification

- Ultra-rapid detoxification under general anaesthesia or heavy sedation (where the airway needs to be supported) must not be offered. This is because of the risk of serious adverse events, including death.

The choice of setting for detoxification

Staff should routinely offer a community-based programme to all service users considering opioid detoxification. Exceptions to this may include service users who:

- have not benefited from previous formal community-based detoxification
- need medical and/or nursing care because of significant comorbid physical or mental health problems
- require complex polydrug detoxification, for example concurrent detoxification from alcohol or benzodiazepines
- are experiencing significant social problems that will limit the benefit of community-based detoxification

Recommendations

People have the right to be involved in discussions and make informed decisions about their care, as described in [NICE's information on making decisions about your care](#).

[Making decisions using NICE guidelines](#) explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

1.1 General considerations

1.1.1 Providing information, advice and support

1.1.1.1 Detoxification should be a readily available treatment option for people who are opioid dependent and have expressed an informed choice to become abstinent.

1.1.1.2 In order to obtain informed consent, staff should give detailed information to service users about detoxification and the associated risks, including:

- the physical and psychological aspects of opioid withdrawal, including the duration and intensity of symptoms, and how these may be managed
- the use of non-pharmacological approaches to manage or cope with opioid withdrawal symptoms
- the loss of opioid tolerance following detoxification, and the ensuing increased risk of overdose and death from illicit drug use that may be potentiated by the use of alcohol or benzodiazepines

- the importance of continued support, as well as psychosocial and appropriate pharmacological interventions, to maintain abstinence, treat comorbid mental health problems and reduce the risk of adverse outcomes (including death).

1.1.1.3 Service users should be offered advice on aspects of lifestyle that require particular attention during opioid detoxification. These include:

- a balanced diet
- adequate hydration
- sleep hygiene
- regular physical exercise.

1.1.1.4 Staff who are responsible for the delivery and monitoring of a care plan should:

- develop and agree the plan with the service user
- establish and sustain a respectful and supportive relationship with the service user
- help the service user to identify situations or states when he or she is vulnerable to drug misuse and to explore alternative coping strategies
- ensure that all service users have full access to a wide range of services
- ensure that maintaining the service user's engagement with services remains a major focus of the care plan
- review regularly the care plan of a service user receiving maintenance treatment to ascertain whether detoxification should be considered
- maintain effective collaboration with other care providers.

1.1.1.5 People who are opioid dependent and considering self-detoxification should be encouraged to seek detoxification in a structured treatment programme or, at a minimum, to maintain contact with a drug service.

1.1.1.6 Service users considering opioid detoxification should be provided with information about self-help groups (such as 12-step groups) and support

groups (such as the Alliance); staff should consider facilitating engagement with such services.

- 1.1.1.7 Staff should discuss with people who present for detoxification whether to involve their families and carers in their assessment and treatment plans. However, staff should ensure that the service user's right to confidentiality is respected.
- 1.1.1.8 In order to reduce loss of contact when people who misuse drugs transfer between services, staff should ensure that there are clear and agreed plans to facilitate effective transfer.
- 1.1.1.9 All interventions for people who misuse drugs should be delivered by staff who are competent in delivering the intervention and who receive appropriate supervision.
- 1.1.1.10 People who are opioid dependent should be given the same care, respect and privacy as any other person.

1.1.2 Supporting families and carers

- 1.1.2.1 Staff should ask families and carers about, and discuss concerns regarding, the impact of drug misuse on themselves and other family members, including children. Staff should also:
- offer family members and carers an assessment of their personal, social and mental health needs
 - provide verbal and written information and advice on the impact of drug misuse on service users, families and carers
 - provide information about detoxification and the settings in which it may take place
 - provide information about self-help and support groups for families and carers.

1.2 Assessment

1.2.1 Clinical assessment

1.2.1.1 People presenting for opioid detoxification should be assessed to establish the presence and severity of opioid dependence, as well as misuse of and/or dependence on other substances, including alcohol, benzodiazepines and stimulants. As part of the assessment, healthcare professionals should:

- use urinalysis to aid identification of the use of opioids and other substances; consideration may also be given to other near-patient testing methods such as oral fluid and/or breath testing
- clinically assess signs of opioid withdrawal where present (the use of formal rating scales may be considered as an adjunct to, but not a substitute for, clinical assessment)
- take a history of drug and alcohol misuse and any treatment, including previous attempts at detoxification, for these problems
- review current and previous physical and mental health problems, and any treatment for these
- consider the risks of self-harm, loss of opioid tolerance and the misuse of drugs or alcohol as a response to opioid withdrawal symptoms
- consider the person's current social and personal circumstances, including employment and financial status, living arrangements, social support and criminal activity
- consider the impact of drug misuse on family members and any dependants
- develop strategies to reduce the risk of relapse, taking into account the person's support network.

1.2.1.2 If opioid dependence or tolerance is uncertain, healthcare professionals should, in addition to near-patient testing, use confirmatory laboratory tests. This is particularly important when:

- a young person first presents for opioid detoxification
- a near-patient test result is inconsistent with clinical assessment
- complex patterns of drug misuse are suspected.

1.2.1.3 Near-patient and confirmatory testing should be conducted by appropriately trained healthcare professionals in accordance with established standard operating and safety procedures.

1.2.2 Special considerations

1.2.2.1 Opioid detoxification should not be routinely offered to people:

- with a medical condition needing urgent treatment
- in police custody, or serving a short prison sentence or a short period of remand; consideration should be given to treating opioid withdrawal symptoms with opioid agonist medication
- who have presented to an acute or emergency setting; the primary emergency problem should be addressed and opioid withdrawal symptoms treated, with referral to further drug services as appropriate.

1.2.2.2 For women who are opioid dependent during pregnancy, detoxification should only be undertaken with caution.

1.2.2.3 For people who are opioid dependent and have comorbid physical or mental health problems, these problems should be treated alongside the opioid dependence, in line with relevant NICE guidance where available.

1.2.3 People who misuse benzodiazepines or alcohol in addition to opioids

1.2.3.1 If a person presenting for opioid detoxification also misuses alcohol, healthcare professionals should consider the following.

- If the person is not alcohol dependent, attempts should be made to address their alcohol misuse, because they may increase this as a response to opioid withdrawal symptoms, or substitute alcohol for their previous opioid misuse.

- If the person is alcohol dependent, alcohol detoxification should be offered. This should be carried out before starting opioid detoxification in a community or prison setting, but may be carried out concurrently with opioid detoxification in an inpatient setting or with stabilisation in a community setting.
- 1.2.3.2 If a person presenting for opioid detoxification is also benzodiazepine dependent, healthcare professionals should consider benzodiazepine detoxification. When deciding whether this should be carried out concurrently with, or separately from, opioid detoxification, healthcare professionals should take into account the person's preference and the severity of dependence for both substances.

1.3 Pharmacological interventions in opioid detoxification

1.3.1 The choice of medication for detoxification

- 1.3.1.1 Methadone or buprenorphine should be offered as the first-line treatment in opioid detoxification. When deciding between these medications, healthcare professionals should take into account:
- whether the service user is receiving maintenance treatment with methadone or buprenorphine; if so, opioid detoxification should normally be started with the same medication
 - the preference of the service user.
- 1.3.1.2 Lofexidine may be considered for people:
- who have made an informed and clinically appropriate decision not to use methadone or buprenorphine for detoxification
 - who have made an informed and clinically appropriate decision to detoxify within a short time period
 - with mild or uncertain dependence (including young people).
- 1.3.1.3 Clonidine should not be used routinely in opioid detoxification.

1.3.1.4 Dihydrocodeine should not be used routinely in opioid detoxification.

1.3.2 Dosage and duration of detoxification

Opioid detoxification refers to the process by which the effects of opioid drugs are eliminated from dependent opioid users in a safe and effective manner, such that withdrawal symptoms are minimised. This should be an active process carried out following the joint decision of the service user and healthcare professional, with continued treatment, support and monitoring. Detoxification should not be confused with stabilisation or gradual dose reduction.

1.3.2.1 When determining the starting dose, duration and regimen (for example, linear or stepped) of opioid detoxification, healthcare professionals, in discussion with the service user, should take into account the:

- severity of dependence (particular caution should be exercised where there is uncertainty about dependence)
- stability of the service user (including polydrug and alcohol use, and comorbid mental health problems)
- pharmacology of the chosen detoxification medication and any adjunctive medication
- setting in which detoxification is conducted.

1.3.2.2 The duration of opioid detoxification should normally be up to 4 weeks in an inpatient or residential setting and up to 12 weeks in a community setting.

1.3.3 Ultra-rapid, rapid and accelerated detoxification

The terms ultra-rapid and rapid detoxification refer to methods that shorten the duration of detoxification and thereby also the duration of withdrawal symptoms. In both ultra-rapid and rapid detoxification, withdrawal is precipitated at the start of detoxification by the use of high doses of opioid antagonists (such as naltrexone or naloxone). The essential distinctions between ultra-rapid and rapid detoxification are the duration of the detoxification itself and the level of sedation. Ultra-rapid detoxification takes place over a 24-hour period, typically under general anaesthesia or heavy sedation. Rapid

detoxification may take 1 to 5 days, with a moderate level of sedation. Accelerated detoxification, which typically does not involve the use of heavy or moderate sedation, refers to the use of limited doses of an opioid antagonist after the start of detoxification to shorten the process without precipitating full withdrawal. All of these methods may help to establish the person on a maintenance dose of naltrexone for preventing relapse.

The levels of sedation used in ultra-rapid and rapid detoxification are briefly defined below (see [section 6.5.2 in the full guideline](#) for further details).

General anaesthesia: the person is unconscious and unresponsive, even in the face of significant stimuli. The ability to maintain ventilatory function independently is often impaired, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function.

Heavy or deep sedation: the person is clearly sedated, may not be easily aroused or able to respond purposefully to verbal commands, and may only respond minimally to very significant stimuli. The person may experience partial or complete loss of protective reflexes, including the ability to maintain an open airway independently and continuously.

Moderate sedation: the person appears obviously sedated but, importantly, can maintain an open airway independently and respond purposefully to stimuli such as verbal questioning.

The risk to the person will be proportionate to the risk inherent in the use of different levels of sedation. In addition, the relatively high use of adjunctive medication associated with ultra-rapid and rapid detoxification exposes the person to risks associated with the use of the medications themselves and their potential interactions.

1.3.3.1 Ultra-rapid and rapid detoxification using precipitated withdrawal should not be routinely offered. This is because of the complex adjunctive medication and the high level of nursing and medical supervision required.

1.3.3.2 Ultra-rapid detoxification under general anaesthesia or heavy sedation (where the airway needs to be supported) must not be offered. This is because of the risk of serious adverse events, including death.

1.3.3.3 Rapid detoxification should only be considered for people who

specifically request it, clearly understand the associated risks and are able to manage the adjunctive medication. In these circumstances, healthcare professionals should ensure during detoxification that:

- the service user is able to respond to verbal stimulation and maintain a patent airway
- adequate medical and nursing support is available to regularly monitor the service user's level of sedation and vital signs
- staff have the competence to support airways.

1.3.3.4 Accelerated detoxification, using opioid antagonists at lower doses to shorten detoxification, should not be routinely offered. This is because of the increased severity of withdrawal symptoms and the risks associated with the increased use of adjunctive medications.

1.3.4 Adjunctive medications

1.3.4.1 When prescribing adjunctive medications during opioid detoxification, healthcare professionals should:

- only use them when clinically indicated, such as when agitation, nausea, insomnia, pain and/or diarrhoea are present
- use the minimum effective dosage and number of drugs needed to manage symptoms
- be alert to the risks of adjunctive medications, as well as interactions between them and with the opioid agonist.

1.3.5 Monitoring of detoxification medication

1.3.5.1 Healthcare professionals should be aware that medications used in opioid detoxification are open to risks of misuse and diversion in all settings (including prisons), and should consider:

- monitoring of medication concordance

- methods of limiting the risk of diversion where necessary, including supervised consumption.

1.4 Opioid detoxification in community, residential, inpatient and prison settings

1.4.1 The choice of setting

1.4.1.1 Staff should routinely offer a community-based programme to all service users considering opioid detoxification. Exceptions to this may include service users who:

- have not benefited from previous formal community-based detoxification
- need medical and/or nursing care because of significant comorbid physical or mental health problems
- require complex polydrug detoxification, for example concurrent detoxification from alcohol or benzodiazepines
- are experiencing significant social problems that will limit the benefit of community-based detoxification.

1.4.1.2 Residential detoxification should normally only be considered for people who have significant comorbid physical or mental health problems, or who require concurrent detoxification from opioids and benzodiazepines or sequential detoxification from opioids and alcohol.

1.4.1.3 Residential detoxification may also be considered for people who have less severe levels of opioid dependence, for example those early in their drug-using career, or for people who would benefit significantly from a residential rehabilitation programme during and after detoxification.

1.4.1.4 Inpatient, rather than residential, detoxification should normally only be considered for people who need a high level of medical and/or nursing support because of significant and severe comorbid physical or mental health problems, or who need concurrent detoxification from alcohol or other drugs that requires a high level of medical and nursing expertise.

1.4.2 Continued treatment and support after detoxification

1.4.2.1 Following successful opioid detoxification, and irrespective of the setting in which it was delivered, all service users should be offered continued treatment, support and monitoring designed to maintain abstinence. This should normally be for a period of at least 6 months.

1.4.3 Delivering detoxification

1.4.3.1 Community detoxification should normally include:

- prior stabilisation of opioid use through pharmacological treatment
- effective coordination of care by specialist or competent primary practitioners
- the provision of psychosocial interventions, where appropriate, during the stabilisation and maintenance phases (see the [section on specific psychosocial interventions](#)).

1.4.3.2 Inpatient and residential detoxification should be conducted with 24-hour medical and nursing support commensurate with the complexity of the service user's drug misuse and comorbid physical and mental health problems. Both pharmacological and psychosocial interventions should be available to support treatment of the drug misuse as well as other significant comorbid physical or mental health problems.

1.4.4 Detoxification in prison settings

1.4.4.1 People in prison should have the same treatment options for opioid detoxification as people in the community. Healthcare professionals should take into account additional considerations specific to the prison setting, including:

- practical difficulties in assessing dependence and the associated risk of opioid toxicity early in treatment
- length of sentence or remand period, and the possibility of unplanned release
- risks of self-harm, death or post-release overdose.

1.5 Specific psychosocial interventions

The focus in this section is on the use of contingency management (the only psychosocial intervention with clear evidence for effectiveness as an adjunct to detoxification) to promote effective detoxification. Other psychosocial interventions are considered in a separate [NICE guideline on drug misuse in over 16s: psychosocial interventions](#).

Contingency management is a set of techniques that focus on changing specified behaviours. In drug misuse, it involves offering incentives for positive behaviours such as abstinence or a reduction in illicit drug use, and participation in health-promoting interventions. For example, an incentive is offered when a service user submits a biological sample that is negative for the specified drug(s). The emphasis on reinforcing positive behaviours is consistent with current knowledge about the underlying neuropsychology of many people who misuse drugs and is more likely to be effective than penalising negative behaviours. There is good evidence that contingency management increases the likelihood of positive behaviours and is cost effective.

For contingency management to be effective, staff need to discuss with the service user what incentives are to be used so that these are perceived as reinforcing by those participating in the programme. Incentives need to be provided consistently and as soon as possible after the positive behaviour (such as submission of a drug-negative sample). Limited increases in the value of the incentive with successive periods of abstinence also appear to be effective.

A variety of incentives have proved effective in contingency management programmes, including vouchers (which can be exchanged for goods or services of the service user's choice), privileges (for example, take-home methadone doses) and modest financial incentives.

For more information on contingency management, see the [appendix](#).

1.5.1 Contingency management to support opioid detoxification

1.5.1.1 Contingency management aimed at reducing illicit drug use should be considered both during detoxification and for up to 3 to 6 months after completion of detoxification.

1.5.1.2 Contingency management during and after detoxification should be

based on the following principles.

- The programme should offer incentives (usually vouchers that can be exchanged for goods or services of the service user's choice, or privileges such as take-home methadone doses) contingent on each presentation of a drug-negative test (for example, free from cocaine or non-prescribed opioids).
- If vouchers are used, they should have monetary values that start in the region of £2 and increase with each additional, continuous period of abstinence
- The frequency of screening should be set at 3 tests per week for the first 3 weeks, 2 tests per week for the next 3 weeks, and 1 per week thereafter until stability is achieved.
- Urinalysis should be the preferred method of testing but oral fluid tests may be considered as an alternative.

1.5.1.3 Staff delivering contingency management programmes should ensure that:

- the target is agreed in collaboration with the service user
- the incentives are provided in a timely and consistent manner
- the service user fully understands the relationship between the treatment goal and the incentive schedule
- the incentive is perceived to be reinforcing and supports a healthy and drug-free lifestyle.

1.5.2 Implementing contingency management

The implementation of contingency management presents a significant challenge for current drug services, in particular with regard to staff training and service delivery systems. The following recommendations address these 2 issues (for further details, please refer to the [appendix](#)).

1.5.2.1 Drug services should ensure that as part of the introduction of contingency management, staff are trained and competent in appropriate near-patient testing methods and in the delivery of contingency

management.

- 1.5.2.2 Contingency management should be introduced to drug services in the phased implementation programme led by the National Treatment Agency for Substance Misuse (NTA), in which staff training and the development of service delivery systems are carefully evaluated. The outcome of this evaluation should be used to inform the full-scale implementation of contingency management.

Recommendations for research

The Guideline Development Group has made these recommendations for research.

1 Adjunctive medication during detoxification

If a person needs adjunctive medication during detoxification, in addition to their opioid agonist reducing regimen or in addition to an adjunctive alpha-2 adrenergic agonist (for example, lofexidine), what medications are associated with greater safety and fewer withdrawal symptoms?

Why this is important

A large variety of adjunctive medications are used for the management of withdrawal symptoms during detoxification, particularly when alpha-2 adrenergic agonists are used. Research is needed to guide decisions on how best to manage withdrawal symptoms with minimal risk of harm to the service user.

2 Comparing inpatient or residential and community detoxification

Is inpatient or residential detoxification associated with greater probability of abstinence, better rates of completion of treatment, lower levels of relapse and increased cost effectiveness than community detoxification?

Why this is important

There have been some studies comparing inpatient or residential detoxification with community detoxification. However, these studies are often based on small sample sizes, have considerable methodological problems and have produced inconsistent results. Inpatient or residential detoxification requires significantly more resources than community detoxification, so it is important to assess whether treatment in such settings is more clinically and cost effective. If so, it is also important to understand if there are particular subgroups that are more likely to benefit from treatment in these settings.

Appendix: Contingency management – key elements in the delivery of a programme

The introduction of contingency management into drug misuse services in the NHS presents a considerable challenge. This is primarily because contingency management has not been widely used in the NHS; hence staff are not trained in the technique and a major training programme will be required to implement it. Another challenge is address the concerns of staff, service users and the wider public about contingency management, in particular concerns that:

- the intervention may 'reward' illicit drug use
- the effects will not be maintained in the long term
- the system is open to abuse as people may 'cheat' their drug tests
- incentive-based systems will not work outside the healthcare system (that of the United States) in which they were developed.

The aim of this appendix, firstly, is to provide a brief introduction to contingency management for those not familiar with this intervention. Secondly, it will address the issues outlined above by setting out a possible strategy for implementation in the NHS, drawing on an evidence base from the United States, Europe and Australia.

Introduction to contingency management

Contingency management refers to a set of techniques that focus on the reinforcement of certain specified behaviours. These may include abstinence from drugs (for example, cocaine), reduction in drug misuse (for example, illicit drug use by people receiving methadone maintenance treatment), and promoting adherence to interventions that can improve physical health outcomes (for example, attending for hepatitis C tests; Petry 2006). To date, over 25 trials of contingency management have been conducted, involving over 5,000 participants, which constitute the largest single body of evidence for the effectiveness of psychosocial interventions in drug misuse. In the formal studies of contingency management, incentives have included vouchers (exchangeable for goods such as food), cash rewards (of low monetary value), prizes (including cash and goods) and clinic privileges (such as non-supervised consumption). All the incentives have been

shown to be effective, although it was the view of the guideline development group that vouchers and clinic privileges would generally be more easily implemented in the NHS.

The following principles underlie the effective delivery of contingency management (Petry 2006).

- Robust, routine testing for drug misuse should be carried out.
- Targets should be agreed in collaboration with the service user.
- Incentives should be provided in a timely and consistent manner.
- The relationship between the treatment goal and the incentive schedule should be understood by the service user
- Incentives should be perceived by the service user to be reinforcing and to support a healthy and drug-free lifestyle.

Implementing contingency management in the NHS

Although contingency management has not yet been implemented in the NHS (but see McQuaid et al. 2007 for a report of a pilot study), there have been a number of major studies looking at its uptake in the United States, Europe and Australia. Crucially, these studies give an account of its implementation in services where initially there was considerable resistance on the part of both staff and people who misuse drugs. They report positive shifts in staff attitudes as the understanding of contingency management increased and its beneficial impact on the lives of people who misuse drugs became apparent (McGovern et al. 2004; Kellogg et al. 2005; Kirby et al. 2006; Ritter and Cameron 2007).

Studies have also looked at the organisational development required to support successful implementation. Kellogg et al. (2005) identified, in addition to the principles outlined above, 4 key aspects of the uptake of contingency management in the public healthcare system in New York:

- endorsement of the programme by senior managers and clinicians, and their engagement with the concerns of direct care staff

- provision of a comprehensive education and training programme that provided clear direction for staff, many of whom were unfamiliar with the basic principles of contingency management
- recognition by staff that contingency management is an intervention aimed at changing specific key behaviours, and does not simply reward people for general good behaviour
- a shift in the focus of the service to one that is incentive-orientated, where contingency management plays a central role in promoting a positive relationship between staff and service users. The emphasis on incentives is consistent with current knowledge about the underlying neuropsychology of many people who misuse drugs; specifically that people with antisocial personality disorder (ASPD; who account for a significant proportion of long-term drug users) are much more likely to respond to positive than to punitive approaches. Messina et al. (2003) found that people with ASPD who received contingency management were more likely to abstain from cocaine use than both participants without ASPD receiving contingency management or cognitive behavioural therapy and participants with ASPD receiving cognitive behavioural therapy.

In a series of interviews and discussions with staff and service users, Kellogg et al. (2005) found that contingency management increased the motivation of service users to undergo treatment, facilitated therapeutic progress, increased staff optimism about treatment outcomes and their morale, and promoted the development of more positive relationships both between service users and staff and among staff members. As a result, there was a shift from viewing contingency management as an intervention that would be difficult to integrate with other interventions to it becoming the main focus of interventions with service users. Other studies (for example, Higgins et al. 2000) also provide important advice on how the effects of interventions can be maintained once incentives are discontinued.

In the NHS, several other factors will need to be considered when developing an implementation programme. These may include:

- the integration, where appropriate, of contingency management with the keyworking responsibilities of staff

- the identification of those groups of people who misuse drugs who are most likely to benefit from contingency management (for example, it might be expected that about 30% of people receiving methadone maintenance treatment will be considered for contingency management)
- the development of near-patient testing
- the impact on service-user government benefits.

The implementation process

Where possible, implementation in the NHS should draw on the experience so far (albeit limited) of contingency management in the NHS and on the experience of agencies such as the National Treatment Agency for Substance Misuse (NTA) in the implementation of service developments in drug misuse. The NTA, with its lead role in drug misuse, is best placed to lead an implementation programme, as it has both the national and regional infrastructure and the experience (for example, through its work on the International Treatment Effectiveness Project). Any implementation programme should include the following elements:

- the establishment of a series of demonstration sites
- dissemination of the findings, including those emerging from demonstration sites, to inform the field
- an agreement with local commissioners where change of contracts or service level agreements are required
- a review of service readiness to implement contingency management and the involvement of senior management, clinicians and key workers in any required service developments
- training programmes for staff to enable them to deliver contingency management
- working with service users to raise awareness about contingency management and involve them in local service design
- evaluation of the implementation programme.

The provision of training to deliver contingency management may include a requirement for service managers, supervisors and front-line staff to acknowledge the need for

institutional change and staff 'buy in'. Training could be designed to provide a foundation covering the theory, practice and research findings of contingency management, including the factors associated with its successful implementation (Kellogg et al. 2005). A major focus of the training programme will be on identifying and developing staff competencies to deliver contingency management in a manner that emphasises the positive, reinforcing aspects of the intervention.

The structure of any evaluation of contingency management could follow that of the implementation programme and may examine the following issues using quantitative and qualitative methods:

- service design (the feasibility of establishing contingency management in services, structures associated with effective uptake and barriers to uptake)
- the most effective training models associated with sustained uptake
- the experiences of staff and service users.

Conclusion

This appendix sets out the background and process by which contingency management may be implemented in drug misuse services in the NHS. Successful implementation of contingency management will have considerable benefits for people who misuse drugs, their families and wider society.

References

Higgins ST, Badger GJ, Budney, AJ (2000) Initial abstinence and success in achieving longer term cocaine abstinence. *Experimental and Clinical Psychopharmacology* 8: 377–86

Kellogg SH, Burns M, Coleman P, et al. (2005) Something of value: the introduction of contingency management interventions into the New York City Health and Hospital Addiction Treatment Service. *Journal of Substance Abuse Treatment* 28: 57–65

Kirby KC, Benishek LA, Dugosh KL, et al. (2006) Substance abuse treatment providers' beliefs and objections regarding contingency management: implications for dissemination. *Drug and Alcohol Dependence* 85: 19–27

McGovern MP, Fox TS, Xie H, et al. (2004) A survey of clinical practices and readiness to adopt evidence-based practices: dissemination research in an addiction treatment system. *Journal of Substance Abuse Treatment* 26: 305–12

McQuaid F, Bowden-Jones O, Weaver T (2007) Contingency management for substance misuse. *British Journal of Psychiatry* 190: 272

Messina N, Farabee D, Rawson R (2003) Treatment responsiveness of cocaine-dependent patients with antisocial personality disorder to cognitive-behavioral and contingency management interventions. *Journal of Consulting and Clinical Psychology* 71: 320–9

Petry N (2006) Contingency management treatments. *British Journal of Psychiatry* 189: 97–8

Ritter A, Cameron J (2007) Australian clinician attitudes towards contingency management: comparing down under with America. *Drug and Alcohol Dependence* 87: 312–5

Finding more information and committee details

To find NICE guidance on related topics, including guidance in development, see the [NICE topic page on drug misuse](#).

For full details of the evidence and the guideline committee's discussions, see the [evidence reviews](#). You can also find information about [how the guideline was developed](#), including [details of the committee](#).

NICE has produced [tools and resources to help you put this guideline into practice](#). For general help and advice on putting our guidelines into practice, see [resources to help you put NICE guidance into practice](#).

Update information

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