

SAMPLE CHAPTER FROM:

Drug Misuse: Opioid Detoxification

The NICE Guideline

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3. INTRODUCTION TO DRUG MISUSE

3.1 DRUG MISUSE AND OPIOID DEPENDENCE

This guideline is concerned with detoxification from opioid dependence. Of the estimated 4 million people in the UK who use illicit drugs each year (cannabis being by far the most commonly used), approximately 50,000 people misuse opioids, although this may be an underestimate (Roe & Man, 2006). Opioid misuse is also associated with much greater rates of harm than misuse of either cannabis or cocaine. Over 150,000 people are in treatment for opioid misuse and are prescribed opioids such as methadone and buprenorphine (NTA, 2005a; Hay *et al.*, 2006).

The term ‘opioids’ refers to a class of psychoactive substances derived from the poppy plant (including opium, morphine and codeine), as well as semi-synthetic forms (including heroin) and synthetic compounds (including methadone and buprenorphine) with similar properties (WHO, 2006). Illicit use of opioids generally involves injecting, or inhaling the fumes produced by heating the drug. The term ‘opiate’ refers strictly to the subset of opioids that are naturally occurring or semi-synthetic, and therefore includes heroin and morphine but excludes methadone and buprenorphine.

Drug misuse is defined as the use of a substance for a purpose not consistent with legal or medical guidelines (WHO, 2006). It has a negative impact on health or functioning and may take the form of drug dependence, or be part of a wider spectrum of problematic or harmful behaviour (DH, 2006). In the UK, the Advisory Council on the Misuse of Drugs (ACMD) characterises problem drug use as a condition that may cause an individual to experience social, psychological, physical or legal problems related to intoxication and/or regular excessive consumption, and/or dependence (ACMD, 1998).

In this guideline, dependence is defined as a strong desire or compulsion to take a substance, a difficulty in controlling its use, the presence of a physiological withdrawal state, tolerance of the use of the drug, neglect of alternative pleasures and interests and persistent use of the drug, despite harm to oneself and others (WHO, 2006). Dependence is diagnosed according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) when three or more of the following criteria are present in a 12-month period: tolerance; withdrawal; increasing use over time; persistent or unsuccessful attempts to reduce use; preoccupation or excessive time spent on use or recovery from use; negative impact on social, occupational or recreational activity; and continued use despite evidence of its causing psychological or physical problems (American Psychiatric Association [APA], 1994).

The diagnosis of dependence is clearest with opioids. The WHO states that:

‘opioid dependence develops after a period of regular use of opioids, with the time required varying according to the quantity, frequency and route of administration, as well as factors of individual vulnerability and the context in which

drug use occurs. Opioid dependence is not just a heavy use of the drug but a complex health connotation that has social, psychological and biological determinants and consequences, including changes in the brain. It is not a weakness of character or will' (WHO, 2006).

Repeated use of a drug can lead to the development of tolerance in which increased doses of the drug are required to produce the same effect. Cessation of use leads to reduced tolerance and this may present significant risks for individuals who return to drug doses at a level to which they had previously developed tolerance. This can result in accidental overdoses and, in the case of opioid misuse, respiratory depression and death.

Withdrawal syndromes have clearly been identified after cessation or reduction of opioid use. DSM-IV criteria for a withdrawal disorder include the development of a substance-specific syndrome due to cessation or reduction in use, the syndrome causing clinically significant distress, and symptoms not being due to a general medical condition or better explained by another mental disorder (APA, 1994).

Opioids also produce intoxication, that is, disturbances in psychophysiological functions and responses, including consciousness, cognition and behaviour, following administration (WHO, 2006). These are described in greater detail in Section 3.5.

People who misuse drugs may present with a range of health and social problems other than dependence, which may include (particularly with opioid users):

- physical health problems (for example, thrombosis, abscesses, overdose, hepatitis B and C, human immunodeficiency virus [HIV], and respiratory and cardiac problems)
- mental health problems (for example, depression, anxiety, paranoia and suicidal thoughts)
- social difficulties (for example, relationship problems, financial difficulties, unemployment and homelessness)
- criminal justice problems.

Many people who misuse opioids also misuse a range of other substances concurrently and regularly (known as polydrug misuse). The use of opioids alongside cocaine or crack cocaine is common, with the National Drug Treatment Monitoring System (NDTMS), which collects, collates and analyses information from those involved in the drug treatment system, reporting an increase in the use of both drugs from 18% of those presenting for drug treatment in 1998 to 24% in 2001 (NTA, 2005b). Alcohol misuse is also common in people who misuse drugs; data from the National Treatment Outcomes Research Study (NTORS) on drug misuse suggested that 22% of participants also drank alcohol frequently, 17% drank extremely heavily and 8% drank an excessive amount on a daily basis (Gossop *et al.*, 2000a). People who misuse opioids in particular may often take a cocktail of substances, including alcohol, cannabis and prescribed drugs such as benzodiazepines, which can have especially dangerous effects in comparison with one of the drugs taken individually.

Drug dependence is associated with a high incidence of criminal activity, with associated costs to the criminal justice system in the UK estimated at £1 billion per annum in 1996 (United Kingdom Anti-Drugs Coordinating Unit, 1998). For example,

more than 17,000 offences were reported by an NTORS cohort of 753 participants in a 90-day period before entering treatment (Gossop *et al.*, 2000b). Notably, most of the offences were committed by a small proportion of the cohort (10% of participants accounted for 76% of the crimes). Illicit drug use is also much more common among known offenders in the UK than among cohorts of comparable age drawn from the general population. In a sample of 1,435 arrestees drug-tested and interviewed by Bennett and colleagues (2001), 24% tested positive for opioids. The average weekly expenditure on drugs (heroin and crack/cocaine) was £290, and the main sources of illegal income were theft, burglary, robbery, handling stolen goods and fraud. The NTORS also found 61% of a drug misuse treatment sample reported committing crimes other than drug possession in the 3 months prior to starting treatment, with the most commonly reported offence being shoplifting. In addition, there is a high prevalence of drug misuse among the incarcerated population: in a 1997 survey between 41 and 54% of remand and sentenced prisoners were reported to be opioid, stimulant and/or cannabis dependent in the year prior to incarceration (Singleton *et al.*, 1999). Drug treatment can lead to significant reductions in offending levels (Gossop *et al.*, 2003) and, as a consequence, the prison and the broader criminal justice system is an increasingly significant referral source and venue for providing drug treatment.

3.2 EPIDEMIOLOGY OF DRUG MISUSE

According to the national British Crime Survey 2005/6 (Roe & Man, 2006), 34.9% of 16–59 year olds had used one or more illicit drugs in their lifetime, 10.5% in the previous year and 6.3% in the previous month. These figures are much lower for opioid use, with 0.1% of the population having used opioids (including heroin and methadone) in the previous year. However, estimates based on data that also take into account other indicators such as current service usage provide an illicit drug-use figure of 9.35 per 1,000 of the population aged 15–64 years (360,811), of whom 3.2 per 1,000 (123,498) are injecting drug users (Chivite-Matthews *et al.*, 2005). Analysis of the 2004/5 data from the NDTMS suggests that there were an estimated 160,450 people in contact with treatment services in England during that period, the majority for primary opioid misuse (NTA, 2005b). Males comprise over 70% of new presentations, and the majority of those requiring treatment are opioid dependent (typically using illicit heroin). Similar figures have emerged from Frischer and colleagues (2001), who estimated 0.5% of the population of Britain (that is, 226,000 people) to be problem drug users. More recent estimates indicate that there are around 327,000 problem drug users (of opioids and/or crack cocaine) in the UK, with 280,000 of these opioid users (Hay *et al.*, 2006).

Drug misuse is more common in certain vulnerable groups. For example, Ward and colleagues (2003) found that among care leavers aged between 14 and 24 years, drug misuse is much higher than in the general population, with three quarters of the sample having at some time misused a drug and over half having misused a drug in the previous month. Levels in the young homeless population are also much higher than the general population, with one survey finding that almost all (95%) of the

sample had at some time misused drugs, many (76%) having used cocaine, heroin, and/or amphetamine in the previous month.

3.3 AETIOLOGY AND MAINTENANCE OF DRUG MISUSE

Drug misuse is increasingly portrayed in the field as a medical disorder, known as the 'disease model' of drug misuse, in part due to advances in our understanding of the neurobiology underlying dependence (Volkow & Li, 2005). There is also no question that numerous socioeconomic and psychological factors all play an important part in the aetiology of drug misuse. These conceptualisations are not mutually exclusive; rather they are facets of the multifactorial aetiology of drug misuse.

The most robust evidence highlights peer drug use, availability of drugs and also elements of family interaction, including parental discipline and family cohesion, as significant risk factors for drug misuse (Frischer *et al.*, 2005). In particular, traumatic family experiences such as childhood neglect, homelessness or abuse increase the likelihood that the individual will develop problems with drugs later on in life (Kumpfer & Bluth, 2004). Recent studies of twins, families and people who have been adopted suggest that vulnerability to drug misuse may also have a genetic component (Prescott *et al.*, 2006), although it is unclear whether repeated use is primarily determined by genetic predisposition, or socioeconomic and psychological factors lead an individual to try and then later to use drugs compulsively. Risk factors for heavy, dependent drug use are much more significant when they occur together rather than individually.

A defining characteristic of drug dependence is that drug use begins as a voluntary action to seek a rewarding stimulus, but continued use results in loss of control over the use, despite its negative consequences (Dackis & O'Brien, 2005). The effects of many illicit drugs are mediated via various brain circuits, in particular the mesolimbic systems, which have evolved to respond to basic rewards (such as food and sex) to ensure survival. A diverse range of substances, including opioids, stimulants and cannabis, as well as alcohol and nicotine, all appear to produce euphoric effects via increasing levels of dopamine (a neurotransmitter) in the nucleus accumbens (Dackis & O'Brien, 2005). This has been well demonstrated in human brain-imaging studies (Volkow *et al.*, 1999). Euphoria resulting from use then potentiates further use, particularly for those with a genetic vulnerability (see below). Chronic drug use may produce long-lasting changes in the reward circuits, including reductions in dopamine receptor levels (Volkow *et al.*, 1999), and these contribute to the clinical course of drug dependence, including craving, tolerance and withdrawal (Lingford-Hughes & Nutt, 2003). In addition, other types of neurotransmitter systems (for example, opioids, glutamates and cannabinoids) are implicated in the misuse of specific drugs.

Although initiation into drug use does not lead inevitably to regular and problematic use for many people (Anthony *et al.*, 1994). It is clear that when use begins, it often escalates to misuse and sometimes to dependence (tolerance, withdrawal symptoms and compulsive drug taking). Once dependence is established, particularly with opioids, there may be repeated cycles of cessation and relapse extending over decades

(National Consensus Development Panel on Effective Medical Treatment of Opiate Addiction, 1998). Vulnerability to use is highest among young people, with most problem heroin users being initiated before the age of 20. Individuals dependent on drugs often become so in their early twenties and may remain intermittently dependent for many years.

The neurobiological account of fundamental reward systems implicated in drug misuse may parallel the sociocultural–behavioural–cognitive model presented by Orford (2001). He conceptualised drug misuse as an ‘excessive appetite’, belonging to the same class of disorders as gambling, eating disorders and sex addiction. All involve activities that form strong attachment, and were once rewarding, but with excessive consumption result in compulsion and negative consequences. Orford argued that the emotional regulation of such appetitive behaviours in their respective social contexts (for example, the excitement associated with gambling or the anticipation of the next ‘fix’ of heroin), well characterised within the principles of operant conditioning, is a primary factor driving excessive use. Secondary factors such as internal conflict (knowing that the behaviour is harmful yet being unable to disengage from it) potentiate these emotions and thus excessive use, but an alternative result is that the individual alters behaviour in order to resolve such conflict. This crucially suggests that recovery is not impossible, but also that successful treatment attempts are likely to operate against a background of powerful natural processes (Orford, 2001).

3.4 THE COURSE OF DRUG MISUSE

Drug misuse is a relapsing and remitting condition often involving numerous treatment episodes over several years (Marsden *et al.*, 2004). While the initiation of drug use does not lead inevitably to dependence over the long term (Anthony & Petronis, 1995), a number of factors can potentiate this developmental course. Earlier initiation of drug use increases the likelihood of daily use, which in turn results in a greater likelihood of dependence (Kandel *et al.*, 1986).

Among people who misuse opioids, who form the predominant in-treatment population in the UK, most individuals develop dependence in their late teens or early twenties, several years after first using heroin, and continue using over the next 10–30 years. In a long-term outcome study (up to 33 years) of 581 male opioid users in the USA, 30% had positive (or refused) urine tests for opioids, 14% were in prison and 49% were dead (Hser *et al.*, 2001). Longitudinal data from the US also showed that the average time from first to last opioid use was 9.9 years, with 40% dependent for over 12 years (Joe *et al.*, 1990). Although it is the case that problem drug users can cease drug use without any formal treatment (Biernacki, 1986), for many it is treatment that alters the course of opioid dependence.

Although drug misuse can affect all socioeconomic groups, deprivation and social exclusion are likely to make a significant contribution to the maintenance of drug misuse (ACMD, 1998).

Factors that influence the cessation of drug use in adulthood are similar to those associated with lack of drug use in adolescence. For example, transitions into social

roles with greater conventionality, responsibility and/or contexts that are not favourable to using drugs (such as employment, mortgage, marriage and pregnancy; for example, Bachman *et al.*, 1997), and good health are not associated with long-term use. Peer pressure is a major influence on experimental use and is also likely to affect a move towards regular use. The level of drug use is again a predictor of continued use.

Once an individual is dependent, drug use is generally a chronic condition, interspersed with periods of relapse and remission (Marsden *et al.*, 2004). Repeated interaction with the criminal justice system, long-term unemployment and increasing social isolation serve to further entrench drug use.

3.5 THE PHARMACOLOGY OF OPIOIDS

Opioids have many effects on the brain, mediated through specific receptors (μ , κ , or δ). The key opioid receptor subtype is μ , which mediates euphoria, as well as respiratory depression, and is the main target for opioids (Lingford-Hughes & Nutt, 2003), while the κ receptor is involved in mood regulation. Drugs such as heroin and methadone are agonists, which stimulate the receptor. Buprenorphine is a partial agonist; that is, it occupies the receptor in the same way but only partially activates it. In addition, it is an antagonist at the κ receptor and therefore is less likely to lower mood compared with μ agonists.

Soon after injection (or inhalation), heroin metabolises into morphine and binds to opioid receptors. This is subjectively experienced as a euphoric rush, normally accompanied by a warm flush, dry mouth, and sometimes nausea, vomiting and severe itching. As the rush wears off, drowsiness, and slowing of cardiac function and breathing (sometimes to the point of death in an overdose), persist for several hours (National Institute on Drug Abuse [NIDA], 2005a). The effects of methadone are similar but more drawn out and therefore less intense (lasting up to 24 hours when taken orally as prescribed); however, this may be circumvented by illicit users who inject the drug.

3.6 THE PUBLIC HEALTH IMPACT OF DRUG MISUSE

The most obvious consequence of long-term illicit opioid use is the development of opioid dependence itself, and the associated harms. These include: increased mortality from overdose and from other directly or indirectly associated harms such as increased risk of infection with blood-borne viruses (HIV, hepatitis B and hepatitis C); high levels of depression and anxiety disorders; social problems such as disrupted parenting, employment and accommodation; and increased participation in income-generating crime.

Mortality, particularly in heroin-dependent users, is high, with estimates of between 12 (Oppenheimer *et al.*, 1994) and 22 times (Frischer *et al.*, 1997) that of the general population. In England and Wales, there were 1,382 drug-related deaths in 2005 (National Programme on Substance Abuse Deaths, 2005). The majority (59%) were cases of accidental poisoning, although a sizeable proportion (16%) was a result

of intentional self-poisoning. Opioids (alone or in combination with other drugs) accounted for some 70% of the deaths, and cocaine 13%. Many of the deaths appear to be due to multiple drug toxicity, especially the presence of central nervous system depressants (for example, alcohol and benzodiazepines), rather than simply an 'overdose' of an opioid. This is supported by research that shows those whose deaths were attributed to overdose have opioid levels no higher than those who survive, or than heroin users who die from other causes (Darke & Zador, 1996). Recent cohort studies have shown that mortality rates from methadone-related death are decreasing (Brugal *et al.*, 2005).

Repeated injection will have medical consequences, such as scarring, infection of blood vessels, abscesses, and compromised functioning of the kidney, liver and lungs (with increased vulnerability to infections). HIV infection is a major problem for injecting drug users, with the number of new diagnoses of HIV in the UK holding at around a hundred for the last few years, and 5.6% of all UK diagnoses attributed to injecting drug use by the end of 2005 (Health Protection Agency *et al.*, 2006). There are differences in geographical distribution of HIV in the UK, with rates higher in some centres such as London. Approximately 50% of injecting drug users have been infected with hepatitis C, but this rate, like the HIV prevalence rate, is lower than in many other countries (Health Protection Agency *et al.*, 2006). Transmission of both hepatitis A and B continues, even though there are effective vaccines. Needle and syringe sharing increased in the late 1990s and since then has been stable, with around one in three injecting drug users reporting this activity in the last month (Health Protection Agency *et al.*, 2005).

Psychiatric comorbidity is common in drug misuse populations, with anxiety and depression generally common, and antisocial and other personality disorders in opioid-using populations (Regier *et al.*, 1990, 1998). The national US Epidemiological Catchment Area study of the prevalence of mental health disorders reported a 47% lifetime prevalence rate of substance misuse (drugs and alcohol) among people with schizophrenia compared with 16% in the general population, and found that more than 60% of people with a diagnosis of bipolar I disorder had a lifetime diagnosis of substance misuse disorder. Around one in five of the people in the NTORS sample had previously received treatment for a psychiatric health problem other than substance misuse (Marsden *et al.*, 2000). Drug misuse disorders complicated by other comorbid mental disorders have been recognised as having a poorer prognosis and being more difficult to treat than those without comorbid disorders; comorbid disorders are more likely to be chronic and disabling, and result in greater service utilisation.

Lost productivity and unemployment increase with the severity and duration of drug misuse, and personal relationships are placed under considerable strain by dependent drug use. Problems with accommodation are also common in such groups. For example, prior to intake in the NTORS, 7% of the study group were homeless and living on the street, 5% were living in squats and 8% were living in temporary hostel accommodation (Gossop *et al.*, 1998).

Drug misuse may also have a negative impact on children and families (see section 3.12). In the UK it is estimated that 2–3% of all children under the age of 16 years have parents with drug problems (ACMD, 2003). While use of opioids

does not necessarily impact on parenting capacity, registration on UK child protection registers for neglect has been correlated strongly with parental heroin use, and parental problem drug use has been shown to be one of the commonest reasons for children being received into the care system (Barnard & McKeganey, 2004).

3.7 IDENTIFICATION AND ASSESSMENT OF DRUG MISUSE

So prevalent is drug use that all healthcare professionals, wherever they practice, should be able to identify and carry out a basic assessment of people who use drugs. Many people who misuse drugs do not present to drug treatment services, with perhaps 50% not seeking treatment; however this represents a significant improvement on the position in the UK in the early 1990s, when perhaps only 20% of people who misused drugs sought treatment. Of those who do not seek treatment for their drug misuse, a proportion may nevertheless present to other medical services, the criminal justice system and social care agencies. Many will not be seeking help for their drug problems and many, for example some of those primarily misusing cocaine or cannabis, may not be aware of the potentially harmful effects of their drug use. It is probable that those who present to services for drug treatment have the greatest number of problems (Best *et al.*, 2006b).

Routine screening for drug misuse is largely restricted in the UK to criminal justice settings, including police custody and prisons (Matrix Research and Consultancy & National Association for the Care and Rehabilitation of Offenders [NACRO], 2004); it is sparsely applied in health and social care settings. For example, a recent study of psychiatric inpatients in London found that only 1 in 50 people admitted to hospital had undergone screening for drug misuse (Barnaby *et al.*, 2003). The NTA's updated Models of Care service framework emphasises the importance of non-specialist (tier 1) services in the identification of drug misuse as a precursor to referral for treatment (NTA, 2006). Opportunistic methods for the effective identification of drug misuse should therefore be considered in a variety of healthcare settings. These are described in more detail in the NICE clinical guideline *Drug Misuse: Psychosocial Interventions* (NICE, 2007).

For those identified and considering treatment, a good assessment is essential to continuing care. Assessment skills are important across all health and social care professionals who may come into contact with drug misuse. Assessment includes information about past and current drug use (amount, type, duration, periods of abstinence and effect of abstinence), history of injecting, risk of HIV and other blood-borne viruses, medical history, forensics and previous contact with treatment services. Assessment is a continuous process carried out at every contact with the individual and his or her healthcare professional, counsellor or social worker and can take place over many years. Urine testing for the absence or presence of drugs is an important part of assessment and monitoring. Formal rating scales may be helpful in assessing outcomes and in certain areas of monitoring, for example of withdrawal symptoms.

The aims of assessment are: to confirm drug use (history, examination and urinalysis); assess the degree of dependence; identify complications of drug misuse and

assess risk behaviour; identify other medical, social and mental health problems; determine the expectations of treatment and the degree of motivation to change; assess the most appropriate level of expertise required; determine the need for substitute medication; and refer to/liaise appropriately with shared care, specialist or specialised generalist care, or other forms of psychosocial care where appropriate. In addition, immediate advice on harm minimisation, including, if appropriate, access to sterile needles and syringes, as well as testing for hepatitis and HIV, and immunisation against hepatitis, should take place.

3.7.1 Clinical practice recommendations

- 3.7.1.1 Detoxification should be a readily available treatment option for people who are opioid dependent and have expressed an informed choice to become abstinent.
- 3.7.1.2 People who are opioid dependent should be given the same care, respect and privacy as any other person.
- 3.7.1.3 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).
- 3.7.1.4 All interventions for people who misuse drugs should be delivered by staff who are competent in delivering the intervention and who receive appropriate supervision.

3.8 THE AIMS OF THE TREATMENT AND MANAGEMENT OF DRUG MISUSE

The clinical management of drug misuse may be categorised into three broad approaches: harm reduction, maintenance-oriented treatments and abstinence-oriented treatments. Detoxification is often seen as the first stage in the process of achieving abstinence. All treatments aim to prevent or reduce the harms resulting from use of drugs. Care planning and keyworking should form a core part of subsequent treatment and care.

Harm reduction aims to prevent or reduce negative health or other consequences associated with drug misuse, whether to the drug-using individual or, more widely, to society. With such approaches, it is not essential for there to be a reduction in the drug use itself (although, of course, this may be one of the methods of reducing harm). For instance, needle and syringe exchange services aim to reduce transmission of blood-borne viruses through the promotion of safer drug injecting behaviour.

Maintenance-oriented treatments in the UK context primarily refer to the pharmacological maintenance of people who are opioid dependent, through the prescription of opioid substitutes (methadone or buprenorphine). This therapy aims to reduce or end their illicit drug use and the consequential harms.

Abstinence-oriented treatments aim to reduce an individual's level of drug use, with the ultimate goal of abstinence. The NTORS found that approximately one third of those entering treatment services were abstinent 5 years later (Gossop *et al.*, 2003). However, these treatments may be associated with an increased risk of death from overdose in the event of relapse after a period of abstinence, during which time drug tolerance is lost (Verger *et al.*, 2003). Consequently, it is particularly important for abstinence-oriented treatment to include education on post-detoxification vulnerability to relapse (Gossop *et al.*, 1989) and to overdose, and for wider psychosocial rehabilitation support to be provided.

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 (WHO, 2006). 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 (DH, 1999). The pharmacological process of detoxification is the first stage of achieving abstinence, with the primary aim to provide symptomatic relief from withdrawal while physical dependence on the drugs is being eliminated (Anglin & Hser, 1990); this should be an active process carried out following the joint decision of the service user and clinician, with adequate planning for or provision of aftercare. Opioid detoxification takes place in a variety of settings, including the community, inpatient units, residential units and prisons, and at different rates.

Care planning should consider the following when any treatment or management plan is developed:

- type and pattern of use
- level of dependence
- comorbid mental and physical health problems
- setting
- age and gender
- service users' aspirations and expectations.

The general principles of treatment are that no single treatment is appropriate for all individuals, treatments should be readily available and begin when the service user presents, and there should be the capacity to address multiple needs. It is also accepted that treatments will change over time. It appears that treatment does not need to be voluntary to be successful – comparisons of voluntary and legally coerced drug treatment have been reviewed recently elsewhere (NCCMH, 2008). For most

people in long-term treatment, that is those with opioid dependence, substitute medications, such as methadone and buprenorphine, are important elements of care. However, services also need to address coexisting problems, such as mental health and physical health problems, alongside the drug misuse.

Keyworking forms the core part of treatment for most service users with long-term drug misuse problems (NTA, 2006). Typically, this involves the following:

- conducting an assessment of need (and a risk assessment)
- establishing and sustaining a therapeutic relationship
- clarification of the service user's goals in relation to his/her drug use
- discussion, implementation, evaluation and revision of a treatment plan to address the client's goals and needs
- liaison and collaboration with other care providers
- integration of a range of interventions based on a biopsychosocial model of drug use (for example, prescribing, addressing needs such as housing and improving personal relationships)
- use of one or more techniques derived from one or more therapeutic models to engage and retain the service user in treatment and to support the treatment plan (for example, drug diaries and motivational skills) in the absence of delivering a complete course of formal psychological therapy.

3.8.1 Clinical practice recommendations

3.8.1.1 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.

3.8.1.2 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.

3.8.1.3 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.

3.9 THE DEVELOPMENT OF DETOXIFICATION SERVICES

As stated above, opioid detoxification is the first stage in the process of achieving abstinence, with the primary aim of providing symptomatic relief from withdrawal while physical dependence on the drugs is being eliminated (Anglin & Hser, 1990). Opioid withdrawal includes a variety of symptoms: anxiety, tremors, nightmares, insomnia, weight loss, nausea, vomiting, seizures and delirium (for example, Bradley *et al.*, 1987). The process of detoxification alone is not perceived as a solution for long-term abstinence (Lipton & Maranda, 1983). Indeed psychosocial interventions should be delivered concordantly in order to maximise benefits derived from detoxification and to address wider issues surrounding drug use. If these are not delivered, benefits from detoxification may only be temporary, and the intervention could be ultimately unsuccessful (Hanson *et al.*, 2006). Detoxification from opioids takes place in a variety of settings, including the community, inpatient units, residential units and prisons. The context in which it is delivered will depend on the nature of the drug itself and the severity of dependence.

Methadone, the most widely used opioid agonist in assisted detoxification (Jaffe, 1989), was developed in Germany during the second world war, when morphine was unavailable. During the post-war period, methadone was primarily used in hospital settings to detoxify dependent opioid users (Gerstein & Harwood, 1990). The aim of using methadone to detoxify heroin users is to suppress withdrawal symptoms through the provision of an opioid-based substitute medication. Service users are initially provided with a dose of methadone equivalent to their illicit opioid (heroin) use, and doses are gradually lowered until they are opioid free. The most rapid regimes take 7–21 days, while ‘slow tapering’ regimes may take up to 6 months or longer (DH, 1999), depending on what is judged to be most appropriate by the practitioner and service user. Methadone does not deliver the intense euphoric ‘high’ associated with heroin, and also has a longer half-life, meaning that it remains in the body for longer than heroin; while the effects of heroin wear off in 2–3 hours, the effects of oral methadone continue for 12–24 hours. Therefore, methadone dose reductions are relatively easy to achieve in the initial phase of a detoxification programme, but during the latter stages withdrawal symptoms may become more prominent and harder to manage. These concerns have led to the use of alternative detoxification agents such as clonidine, lofexidine, buprenorphine and dihydrocodeine.

Like methadone, buprenorphine is a synthetic opioid that acts as a substitute for heroin. It was licensed for use for opioid dependence treatment in the UK in 1999, and thus it is not as well established as other detoxification treatments (Lintzeris *et al.*, 2002). Buprenorphine is a partial opioid μ agonist, which occupies receptors without fully activating the system, and is therefore associated with a less severe withdrawal syndrome (Ford *et al.*, 2004). In comparison with methadone, buprenorphine also has a longer duration of action, and an increased safety profile in overdose due to its lesser effects (Walsh *et al.*, 1994).

Alpha₂ adrenergic agonists, which include clonidine and lofexidine, are known to ameliorate a cluster of opioid withdrawal symptoms (those associated with the noradrenaline system, including sweating, shivering, and runny nose and eyes). Clonidine,

originally developed as an anti-hypertensive drug, had received widespread use as one of the first non-opioid-based options for managing opioid withdrawal (Gossop, 1988), but its hypotensive effects are problematic in the context of detoxification. Lofexidine was therefore developed as an alternative to clonidine with reduced hypotensive effects, and is currently licensed and used widely in the UK for opioid detoxification. Whilst alpha₂ adrenergic agonists allow for detoxification to be attained over a shorter length of time (typically ranging from 5–7 days) compared with buprenorphine, they do not address other (non-noradrenergic) withdrawal symptoms, and therefore must be supplemented by additional medications.

Problems commonly associated with detoxification are low completion rates and high levels of relapse post treatment (Mattick & Hall, 1996). In an attempt to address this issue, ultra-rapid detoxification techniques using naltrexone administered under anaesthesia or deep sedation within a medically monitored setting have been established in recent years (Loimer *et al.*, 1991). Naltrexone is a long-acting opioid antagonist, first approved for use in 1984 as a maintenance treatment to block the effects of opioids after detoxification (Tai & Blaine, 1997). When used in the context of opioid detoxification, it displaces any opioids that are already present in the drug user's system, thereby precipitating withdrawal.

Service users undergoing ultra-rapid detoxification are typically admitted to the intensive care unit of a hospital or a high dependency unit for 24 hours, during which time naltrexone and/or naloxone is administered to precipitate withdrawal. On presentation of withdrawal symptoms, the service user is anaesthetised or heavily sedated, such that (in theory) he or she does not consciously experience any of the ensuing acute withdrawal symptoms. A significant number of adjunct medications, such as anti-diarrhoeals, antiemetics, alpha₂ adrenergic agonists and benzodiazepines, are also administered to manage withdrawal symptoms. There is no uniformity in methods employed to carry out ultra-rapid detoxification, and there has been much controversy surrounding their safety, cost and effectiveness due to the limited long-term outcome data (Strang *et al.*, 1997a). Ultra-rapid detoxification is currently not used in the NHS.

3.10 CURRENT CARE AND TREATMENT IN THE NHS

The British response to drug problems dates back to the report of the Rolleston Committee of 1926. The committee accepted dependence as a disease and established a medical approach to drug problems in Britain rather than the predominantly punitive one pursued in other countries such as the US. Rolleston gave doctors a large degree of clinical freedom in their response to people who were dependent, including the use of maintenance treatment. To this day, maintenance is considered an essential aspect of drug treatment.

A large increase in the number of people with heroin dependence in Britain in the mid-1960s prompted the establishment of a network of drug dependence clinics set in psychiatric hospitals and run directly by the NHS. The second epidemic of heroin use in the early 1980s led to a further re-shaping of the British treatment response. A multidisciplinary approach was encouraged through the establishment of community

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drug teams and attempts to increase general practitioner (GP) involvement in drug treatment, with the first in a series of clinical guidelines setting out the responsibilities of the prescribing doctor (DH, 1999). The guidelines also sought to encourage shared care of the person who misuses drugs by different professional groups. While the drug dependence clinics remained the cornerstone of this reshaped approach, the vast majority of treatment prescriptions, namely oral methadone, were now dispensed by community pharmacists and consumed at home. This was further supported by the 2004 General Medical Services contract provision for enhanced maintenance prescribing services (British Medical Association, 2004).

The emergence of HIV/autoimmune deficiency syndrome (AIDS) in the 1980s led to the introduction of needle and syringe exchange schemes as an addition to the treatment services available. These schemes provided needles and syringes to the dependent and non-dependent injector. Harm reduction also became an important aspect of treatment responses to drug misuse. Another refocusing of drug treatment came in the 1990s, with increased concern over the link between criminal activity and drug misuse. Criminal justice settings were seen as an important conduit for getting people who misuse drugs into treatment and a number of interventions such as Drug Treatment and Testing Orders (DTTOs) were established. In 2003, the Home Office, with the DH and the NTA as its key partners, introduced the Drug Interventions Programme (DIP), which seeks to bring treatment and criminal justice services together in responding to drug misuse (Witton *et al.*, 2004).

Most drug treatment is initiated as a result of drug users themselves seeking treatment. However, there has recently been a rapid expansion in forms of legally coerced treatment, whereby the person who misuses drugs is coerced into treatment as an alternative or adjunct to criminal sanctions (Wild *et al.*, 2002). Such treatment may be legally ordered by the court or through referral away from the judicial process, usually following arrest and charge for drug-related and other offences. Despite recent policy shifts of referral away from the courts, however, many people who misuse drugs still serve prison sentences. A recent estimate suggests that around 39,000 prisoners with a serious drug problem are in custody at any one time (All-Parliamentary Group on Prison Health, 2006). Within the prison setting, drug misuse treatment is increasingly being offered following a number of recent developments, including the phased transfer of responsibilities for commissioning healthcare in publicly funded prisons from the Home Office to the NHS (DH, 2006). While the mainstay of treatment in prison has traditionally been one of detoxification upon admission, there has been a recent policy shift allowing increased access to opioid maintenance therapy and psychosocial interventions.

Current practice in detoxification

Much of the current treatment of drug misuse in services directly provided or purchased by the NHS focuses on the treatment of opioid misuse. In large part this is reactive to the drug problems with which service users present, who may themselves be informed by awareness of relevant treatments as well as their own perceptions of whether their drug use is problematic. In the last decade there has been a significant increase in the numbers of service users being treated in primary care settings, with a

national survey showing that in 2001 almost three times as many GPs were seeing people who misused opioids compared with in 1989 (Strang *et al.*, 2005). GPs are now a large part of the substance misuse workforce. Much of the change in the response from primary care has been through initiatives from the Royal College of General Practitioners, for example the development of a national drugs training programme and the creation of a national primary care network.

Around 30,000 detoxifications are currently carried out each year, and the majority are in the community; among individuals who have received any form of treatment for drug misuse, 19% had previously undergone community detoxification while 13% had received residential treatment (Best *et al.*, 2006a). Approximately one third entering treatment services generally are abstinent 5 years later (at least for a period of time) (Gossop *et al.*, 1998).

Service users consulting either a GP or a community drug team are assessed initially and their plans for treatment elicited. One of the dilemmas of drug treatment is that the majority of heroin users – as high as 81% according to the NTA Annual User Satisfaction Survey – wish to become drug free (Best *et al.*, 2006a), hence they may frequently ask for detoxification. This is often unrealistic as there may be many factors that make abstinence unlikely to be possible for the individual at that time. These would include drug-related risk factors such as polysubstance use and social risk factors such as homelessness. The availability of treatment options for detoxification may also be limited by external factors, in particular for inpatient detoxification. Thus the process of treatment planning is often one of negotiation and education, with the treatment provider having to give the service user realistic information about outcomes and the possible range of treatment options.

In practice, this means that most service users only commence formal detoxification following a period of stabilisation on a substitute opioid (either methadone or buprenorphine). The stabilisation results in the cessation of illicit drug use, with the individual feeling comfortable on the dose of substitute opioids he or she is taking. This process can take months or even years to achieve and for many only happens after years of maintenance treatment.

Once a prescriber and a service user have planned a detoxification, the rate and nature of the dose reductions are agreed in advance, although they can be revised. The service provider should provide a package of psychosocial support, which is usually delivered via a keyworking relationship which may or may not be with the prescriber. The prescriber and service user also need to agree on a package of aftercare to support the service user after the pharmacological phase of treatment is finished.

For a service user in the community who is seriously committed to detoxification treatment, dose reduction can take place over anything from a few days to several months, with a higher initial stabilisation dose taking longer to taper. In practice, up to 3 months is typical for methadone reduction, while buprenorphine reductions are typically carried out over 14 days to a few weeks. Detoxification using lofexidine is much faster than using either methadone or buprenorphine, typically lasting 5–7 days, and up to a maximum of 10 days.

Although a substantial number of service users benefit from detoxification in the community, many who start these programmes may fail because they start to use

illicit drugs when their substitute opioid dose is reduced. The programme can then be changed to maintenance by increasing the dose again and changing the treatment plan to address other issues. Unfortunately this can result in service providers having treatment plans with unclear treatment goals.

Service users on maintenance programmes often also reduce their doses over time. If they are otherwise stable, this can be successful but it may be very slow; indeed, dose reductions may be planned over many years. These gradual dose reductions are not really detoxifications; clinical experience would indicate that this approach may be successful but there is little research evidence to support it. In practice, a gradual dose reduction may prepare a service user for detoxification.

Detoxification in an inpatient setting can take place over a shorter time than in the community as the supportive environment helps a service user to tolerate emerging withdrawal symptoms. However, a similar process occurs as in the community: that of stabilisation on the dose of a substitute opioid and then gradual dose reduction. In an inpatient environment, reduction typically takes place over a shorter time: 14–21 days for methadone and 7–14 days for buprenorphine.

Various rapid detoxification programmes involve the use of naltrexone and other adjuncts (see above) to accelerate the pharmacological process of detoxification to as short as 24 hours, but these are not currently available in the NHS.

Service users who are incarcerated are often detoxified in prison. Historically this has been done involuntarily, although increasingly maintenance is available to service users who are eligible. Also, historically, service users have had no choice about the drugs used for their detoxification but again this is beginning to change. It is also important to remember that, despite the involuntary nature of prison detoxification, many inmates regard a detoxification in prison as welcome and a chance to reduce their drug use either temporarily or indeed permanently.

3.11 THE EXPERIENCE OF DRUG MISUSE – PERSONAL PERSPECTIVES

3.11.1 Testimony A

My first experience of taking drugs was at senior school. One of my school friends had started smoking cannabis and tried to assure me that it was harmless. After building up the courage, I half pretended to take a few puffs to test the ground. After this experience, I discovered that one of my teachers smoked cannabis too. Sometimes I would go to the pub at lunchtime, have a pint (in the same pub as the teachers) and a joint, then maybe go back to school if I didn't get too wrecked. For the last year of school, I experimented with so many drugs that I never attended and, when it came to leaving, the teachers didn't know who I was.

Along with alcohol and cannabis, I discovered that pills seemed to take me away from my boredom and depression. My mother had a stock of them in the cupboard and I soon discovered which pills were which and that diazepam and chlordiazepoxide seemed to do the trick. Not long after this, I met lots of people who mainly smoked

dope but were also buying different drugs. In those early days, there were all kinds of uppers and downers, either acquired from people's families or stolen from chemists, such as 'reds' and 'browns', 'clears', 'black bombers', 'purple hearts', dextroamphetamine, and so on. I experimented with just about everything I could get my hands on, from speed, LSD [lysergic acid diethylamide] and mushrooms, to dextromoramide, secobarbital, diazepam, dipipanone and methaqualone.

I was about 16 when I first realised I had a problem: I wanted to stay permanently stoned from whatever drugs I could get my hands on. I usually always had cannabis to enhance the feeling of other substances.

I was 16 or 17 when I was introduced to heroin. I would go to a friend's house on a regular basis and smoke dope until I changed colour; one day I went and was offered heroin. I remember my friend saying: 'Look, all of us have had it and we are fine'. Even though I had fears about becoming addicted on the first go, I tried it and loved it. All of my true friends warned me against it and what would happen, but I just had to see for myself. Little did I know that it was going to cost me 23 years of my life, and that I would have no friends left. Even though I knew lots of other people who took drugs, I felt very isolated; I didn't even feel equal to someone who had a different addiction to me. I felt the lowest of the low for many years and felt so tightly trapped in my heroin addiction that I truly believed I would only ever come out of it dead. Some people accept that lifestyle and others hate it. I was one of those who hated it but could never see an end to it no matter how hard I tried. I was depressed as a child, which became more severe and hard to handle as my addictive years went by. I twice came to the point of taking my own life and at the last second couldn't do it. I also thought about it more times than I can remember, just wishing I could have been dead.

My mother feared she would be getting a phone call any time to tell her that her son was dead. I believe my drug use affected my mother's health because she was always worrying about me. My sister thought I was a waste of time and at one point my father disowned me. I moved away from my home town to London in 1982 in an attempt to give up heroin. Since then, I have never moved back home; I wanted to try to hide as much of my addiction as I could from my family.

Any relationships I had while using heroin inevitably didn't last very long. Being an addict, I lied a lot about where I was going and what I was doing. Methadone made things a little more stable, but needless to say, sex wasn't as regular as it should have been. One or two ex-partners actually thought I had a mistress; they were right: 'Lady Heroin'.

I was first treated for drug addiction in the psychiatric unit of my local hospital in 1980. I entered a detox programme and was prescribed methadone but I was not offered any counselling. When I came out, I started using again. After this, I was in and out of prison for drug-related offences, but I was offered no treatment inside; when it looked like I was going to prison for a third time, I decided I needed help. Instead of receiving a third prison sentence, I asked the judge if I could go into residential rehab in London. I felt safe in rehab and didn't realise how little I had to look forward to once completing and leaving rehab. I eventually went back on heroin again. For a time, I was prescribed physeptone and pure heroin ampoules but without much in the way of counselling.

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It wasn't until 1985 that I saw a counsellor (in order to get methadone from a community treatment programme you had to see a counsellor twice or three times a week). My relationships with professionals were not particularly good. I resented the fact that I had to do what my keyworker said or be thrown off my course. Once I had finished one course of 6-week reduction, I went back on the waiting list for another one. You were deemed to have failed if you wanted to go on another course. It took years before I began to trust any of the workers. For over 2 and a half months I was refused a place for community treatment due to false positive urine tests; the tests said that I had diazepam in my system when I really hadn't taken anything.

I was also offered treatment, from a little help at home with a dihydrocodeine from a sympathetic doctor, to a detox at home with lofexidine after being monitored for blood pressure for a couple of hours.

During this period of my life I was on heroin for most of the time with brief periods of taking methadone. I had no life at all, except the routine of waking up, looking for money to buy heroin, and then buying heroin.

But in 2003 I decided that I wanted to stop using for good; I felt like it was 'wake-up or die' time. One of the main reasons I wanted to stop was because heroin suppressed just about all of my emotions and I desperately wanted to feel something again. Without emotions I had no incentive to drive a car, love a woman, get a house, fly a kite; without emotions I was a zombie. I was living with someone at the time who used to go out every day and do all the scheming for money for drugs. But I wasn't going to put my neck on the line any longer by risking going to prison, so the day he left I knew was the day I was going to give up for good. Without support from a drug worker, I stopped using heroin and 2 days later started taking buprenorphine, which to my mind is a godsend; on the third day, I was up and about, helping deliver 7 tonnes of food aid and feeling great. Since that day I have not wanted to take heroin at all.

After 23 years, I had stopped using drugs. It had been a relatively simple process and I wondered why it could not have happened before. But it hadn't happened, probably because I had not been able to break the cycle before. I realised that this was the time that one big window of opportunity was opening; but, without doing something to keep me occupied, I knew there was every chance of slipping backwards.

I found a crumbling self-help group with one person attending and one part-time staff member; we managed to bring that group back to life. I spent the next 2 and a half years volunteering support to others who wanted to use self-help. I've also had lots of input into my local addiction organisations as well as national input; this in turn helped me to help myself.

Since this time, I've never looked back. I've had so much energy and time to start enjoying it all. Life is radically different: buprenorphine, which I take daily, has helped me gain stability and self-respect. I no longer have the worry of being in and out of prison because I don't need to go out on the streets looking for money for heroin. And, thanks to buprenorphine, I really don't have any craving for heroin. I am now thinking about stopping taking buprenorphine.

Since stopping using drugs, I still get depression but it's much easier to handle and much less frequent. I can sometimes feel depressed for days on end, but usually all I

need to do is think about the desperation I felt from 23 years of using; I then just make a simple comparison.

The drug use has taken its toll on my physical health. I had a blood test after I stopped taking heroin and found out that I have hepatitis C. The doctor didn't give me any sympathy and told me that I can expect to be dead within 30 years after my liver becomes cancerous. I still have the virus, which hasn't got any worse over the years, but I am giving some thought to having it treated soon.

I didn't learn lessons I should or could have while using, but now with clarity of mind, one of the many lessons I've learned is that it will pass, but if any window of opportunity opens before it does pass, I take it.

Since I first started using, I think that overall the whole of the field of care has changed for the better. I believe that listening to addicts' and ex-addicts' views on treatment has reformed drug treatment services nationwide. Many more doctors have become involved with community treatment and, from my experience, really do care.

3.11.2 Testimony B

I witnessed drug and alcohol misuse very early on in my life, either through relatives who openly smoked cannabis in front of me, or simply by being present at drinking parties in my home, but my own first-hand experience of illicit drugs began when I was 11 years old. I had just started senior school and I knew that drugs were available there, due to the fact that I had cousins at the school who used drugs. Soon after starting senior school, I was associating with older pupils; after school at a friend's house, we inhaled some poppers (amyl nitrate) that my friend had stolen from his aunt, but I didn't really like the experience. Shortly after that, we used our dinner money to buy a small amount of hash from one of my cousins. We smoked a spliff during the lunch break, and I was so smashed that I couldn't go back to school.

After this experience, I smoked cannabis as often as I could afford, but I used to read up on all the different drugs and their effects, and what I really wanted to try out was LSD, which during that time was in plentiful supply, and also at a relatively low price. Before long, I had found someone prepared to sell me acid on a regular basis. Following this experience, I then moved on to just about all of the other drugs available at that time, and by the age of 14, I was selling drugs in and outside school. Eventually, I was expelled from school for selling drugs, non-attendance and disruption. No charges were brought, but I acquired a label as someone who could be approached for drugs.

I realised very early on during my substance misuse that I had a problem. At the time, I couldn't admit, or in some cases fully comprehend, some of the reasons why I used drugs and drank alcohol, although now that I look back, I am able to identify the reasons. It would be difficult to provide a summary-like version of the antecedents to my drug use and criminality, except to say that I felt the need to opt out of reality. I definitely knew I had a problem because I could see that my habits were different from other people's. Most people with whom I took drugs would all gather round at one of our houses; then, at a particular time, they would have to go home, as they were expected to, because they had to be at school. However, I didn't, so I would then go

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on to an older person's house, where I would take more amphetamine, smoke cannabis all night and drink. Very quickly, my circle of 'friends' was reduced to people who were similar to me. I used to stay awake for days at a time, and the majority of people who I came into contact with were just buying drugs from me. During this time, despite the fact that I was still enjoying taking certain drugs, I led a lonely, maladjusted life. I used to take such large amounts of drugs (several types at once) that I'd experience many unpleasant effects; my health began to suffer at an early age, and I later contracted hepatitis C. I had become addicted, was surrounded by drugs, had become accustomed to a particular lifestyle and, above all, didn't feel able or ready to even contemplate a life without drugs.

My drug use devastated my family, and my family's drug use devastated me. (My mother didn't use drugs, although she is an alcoholic, and her steady, almost controlled use of alcohol was very different from my chaotic use of many different kinds of drugs.) I had a very bad attitude, and made my mother's home unsafe to live in. Police would bust the house at least twice a year for about 10 years. People would come to the house demanding money; one time, I was even kidnapped, and my mother had to bail me out. I had my life threatened several times during my drug use, and I used to keep guns, knives, CS gas and a whole range of weapons in my mother's house. My younger brothers suffered as a result of this behaviour, and the only time they ever felt safe was when I was in prison. My mother found me when I almost died from an overdose, and watched me waste away to nothing over years of drug abuse.

I first accessed treatment services when I was 18. I obtained a methadone script, which was eventually three times a week, but I had absolutely no interest in coming off drugs. I used to sell my script most of the time in those days, and viewed my drugs worker as an inconvenience. I didn't need him at that stage, as I wasn't destitute, and was just taking the piss. One month, when I wasn't even dependent on opioids, I had to buy some methadone, because I had a routine urine test coming up, and knew that I had to have some meth in my system. I didn't even take the methadone that I scored; I gave it to someone else, and submitted their urine, which I heated up with a lighter in the toilets of the service. In those days, as far as I was concerned, they either didn't give a shit, or just didn't know the score.

Over the years, I got more tired of using and in real need of help. I went through many different services, prescribers, GPs and counsellors, until I eventually arrived at the stage where I was truly ready to give up drugs. It was around this time, at the age of 25, after 16 years of substance misuse, that I had enough. When I got to this stage, I began to be truthful with the workers with whom I came into contact, with reasonable results, although none of the community-based staff could deliver what I needed. Some of them didn't have the skills, personally or professionally, and just couldn't imagine what it was like for me at that point in my life. I had become so immersed in the lifestyle, and had ingrained habitual behaviour, that any work they attempted to do with me was generally ineffective, because the one important aspect of my addiction which they had no control over was my personal circumstances and my immediate environment.

I decided to enter a detox programme while inside prison in November 2003. To gain entry into the programme, I had to agree to go onto the drug-free wing within

the prison, which was a standard prison wing, exactly the same as the rest of the prison. Also, I had to agree to a regime of regular urine testing. The unit wasn't actually drug free in reality, although there were definitely more prisoners who were not using heroin and other drugs, and perhaps a few more positive attitudes. At the time of making the decision, I was absolutely desperate to be detoxified.

Drugs for the detoxification were administered by the prison healthcare team; the programme consisted of a 3-week buprenorphine reduction programme, with one-to-one support on a regular basis, although not by anyone who was a trained drugs worker or counsellor. The unit itself was run by prison officers, managed by two officers in particular who showed the most interest in drug treatment, although they were by no means specialists. It was as close as one could be to a detox centre within that setting, given that the majority of those accessing it had absolutely no intention of trying to become or remain drug free. In spite of this, I was determined to get something out of it, and took advantage of everything that was on offer, such as complementary therapies like auricular acupuncture, relaxation sessions and one-to-one sessions, which I enjoyed. It was respite for me, in the sense that it was a different atmosphere from the prison wing.

I didn't complete the detox in prison, as I was bailed onto a DTTO. On release from prison, I was offered no follow-up support. I went back to my home town and accessed my local drug services, who seeing the effort I had made not to use upon release, got a script sorted out for me on the day that I saw them. I'd been a client at this place for a number of years, but I had never received treatment as efficient as this, and I made full use of it in a positive way. If I had to pinpoint one aspect of the care that was good, it would be the way that the service, at that particular point in my treatment journey, made an effort to provide me with seamless care. From there, I was taken up by my local DTTO team who took my script over. The prescribing nurse and my keyworker in probation agreed that I should be maintained on buprenorphine for the duration of the 12-month order, to try and maximise my chances of addressing my needs at that time.

I didn't complete the DTTO, because I got sick and tired of it. I had a discussion with my personal probation officer about the possibility of entering residential treatment, as I felt unable to cope with the situation I was in at that time. I went into a residential rehabilitation centre in 2004 in order to address my addiction, as I needed a holistic package of care, which thankfully I received during a 12-month programme. I managed to secure a place at a residential rehab, just 6 months after being bailed from prison. The rehab was a therapeutic community with 36 beds and used cognitive behavioural therapy (CBT) techniques. I went through opioid withdrawal without the assistance of any substitutes, or adjunctive medicine. In the end, it was other people that helped me to get through my withdrawals, not chemicals. My relationship with my keyworker in rehab was one of complete honesty, trust and mutual respect. This person was the catalyst that enabled me to explore the underlying issues that underpinned my substance misuse. They helped me achieve this by being empathic, determined and creative in their practice, as well as effectively coordinating my care with other agencies.

I now lead a very happy and fulfilling life. I have chosen not to drink alcohol or use any illicit substances, nor do I commit crime. I have a family of my own now who have never known me under the influence of drugs or alcohol. I work in the drug

treatment field, as a support worker at a residential rehab. I also teach at a pupil referral unit, and I'm half way through a sociology degree with the Open University. In the next academic year, I'm going to take a place at my local university to embark on a degree in social work. I plan to specialise in working with families with substance misuse problems. I currently sit on an advisory group that informs social work students about transferring their academic skills into good practice.

Although my drug use led to a few physical ailments, I feel relatively healthy now, as I've been drug free for nearly 4 years. When I entered residential rehab, a GP referred me to a liver specialist, who treated the hepatitis, and I've been clear of the virus for nearly 2 years.

I have many tools that aid me in my recovery at present, all of which I've accumulated over time. I believe that every individual has their own unique set of circumstances, thus their own set of precursors or reasons that lead to problematic drug use in the first place. Based on this, I would say that each person needs to find what is right for them, not just in terms of treatment, but also after treatment. Personally, I keep myself extremely busy, not just with my social-care-related work, but in everything I do. I make sensible choices when it comes to who I associate with, where I live (I've subsequently relocated) and how I behave towards others.

3.12 IMPACT OF DRUG MISUSE ON FAMILIES AND CARERS

There is an increasing recognition that drug misuse affects the entire family and the communities in which these families live. The NTA user satisfaction survey found that 25% of respondents felt that staff did not offer families and carers enough support (Best *et al.*, 2006a). The Home Office's updated Drug Strategy (2002) includes targets on increasing access to help, advice and counselling for parents, carers and families of people who misuse drugs. Staff should be particularly aware of the needs of children (ACMD, 2003 & 2007) and consider their own responsibility under the Children Act (1989).

There has also been a growth in carer organisations, most notably Adfam and Families Anonymous, for carers of people who misuse drugs, and over 100 peer-support family groups in the UK founded on parents' own experience of drug use in their families. Families Anonymous is a self-help service based on the 12-steps and is aimed at helping families affected by drug use and behavioural problems (for further details on evidence for the effectiveness of 12-steps and similar approaches, see NCCMH, 2008). Families attend meetings on a regular basis and share their experiences with other families. However, despite the recognition of carers' needs and the growth of carer organisations, there is a rather limited evidence base assessing the impact on carers/families of drug misuse, on interventions intended to support them, and even less attention given to the needs of the family/carer in their own right. Most interventions have targeted carers/families primarily to improve outcomes of the person who misuses drugs and only secondarily to address the needs of the family.

Adfam's report (Sims, 2002) identified a number of needs of families of people who misuse drugs and alcohol. One of the major needs reported by families was

coping with stigma. It was argued that stigma was a major barrier in preventing carers or family members from accessing services, both in terms of actual exclusion from primary care services as well as self-exclusion through fear of being judged. A further need was to access services. Provision of services for families of people who misuse drugs was found to be rather limited (see also Bancroft *et al.*, 2002), but even where these services were available, many families were either not aware of them or did not know how to access them. Many families also perceived themselves to be excluded from participation in the treatment provided for their family member. Some families felt that workers were hiding behind confidentiality when they could have provided general information about treatment. Families may also have different treatment goals from the person misusing drugs and staff involved in his or her care.

The involvement of families and carers remains problematic, but many families express a clear desire for the person with a drug problem to become abstinent and detoxification has a clear role to play in this. Appropriate involvement of family members in the assessment and engagement process may both support the family member and facilitate a more successful outcome. Some psychosocial interventions also explicitly involve family members with the aim of maintaining abstinence following detoxification (see Chapter 7).

3.12.1 Clinical practice recommendations

- 3.12.1.1 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.
- 3.12.1.2 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.

3.13 ECONOMIC IMPACT OF DRUG MISUSE

Drug misuse is a growing public health concern that carries a substantial economic burden. It is associated with high healthcare and social costs, mainly as a result of transmission of infectious disease, crime and violence (Petry *et al.*, 2004). It has been estimated that problematic drug use accounts for annual social costs in England and Wales

Introduction to drug misuse

of approximately £11,961 million, or £35,455 per user, per year (Godfrey *et al.*, 2002). Chronic health problems comprise a significant element of the health and social care costs of drug misuse. It has been estimated that the prevalence of HIV among new injecting drug users in London reaches 4.2% (Judd *et al.*, 2005). Godfrey and colleagues (2002) estimated the median number of HIV-positive injectors in England and Wales in 2002 to comprise 931 asymptomatic individuals, 1,756 symptomatic and 1,007 with AIDS. The same authors estimated the median per person annual cost of combination therapy at £13,381 for asymptomatic, £14,222 for symptomatic and £24,314 for people with AIDS. These estimates yielded median annual costs to the NHS of £12.5 million, £25 million and £24 million, respectively, totalling over £60 million.

In 1999, the reported prevalence of hepatitis B in injecting drug users was estimated at 25% among those attending agencies in London and 17% outside London, with a combined estimate for England and Wales of 21% (Godfrey *et al.*, 2002). Based on these estimates, the same study calculated that the number of injecting drug users who were infected with hepatitis B in 2002 was roughly 54,000. An annual cost of £143 per year assumes a lifetime cost of £4,300 to treat people with hepatitis over their average life expectancy of 30 additional years (Godfrey *et al.*, 2002). The annual NHS treatment cost of hepatitis B for injecting drug users was therefore calculated at approximately £7.8 million (Godfrey *et al.*, 2002). Similar estimates for hepatitis C (based on a median 2002 estimate of 81,782 injecting drug users with the virus) yielded an annual NHS treatment cost of £11.7 million (Godfrey *et al.*, 2002). Beyond the healthcare costs incurred directly by the users, the NHS costs relating to treatment of neonates affected by mothers' drug misuse were calculated at £4.3 million per year (Godfrey *et al.*, 2002), with the annual cost of social services in caring for these children amounting to £63 million.

Including primary care, emergency departments, inpatient care, community mental health, and inpatient mental healthcare, problem drug users are estimated to cost the health service between £283 million and £509 million per year (Godfrey *et al.*, 2002). This estimate was in addition to psychosocial interventions, which at present cost £1,000 per user, per year (Godfrey *et al.*, 2002). Furthermore, drug misuse substantially increases crime-related costs. Godfrey and colleagues (2002) estimated that the criminal justice system and crime victim costs were £2,366 million and £10,556 million respectively, based on the medium estimates of the number of problematic drug users. Criminal justice costs include costs associated with drug arrests for acquisitive crimes, stays in police custody, appearances in court, and stays in prison; crime victim costs refer to material or physical damage, crime victims' loss and expenditures taken in anticipation of crime.

The above estimates did not consider the impact of current drug use on future healthcare demands, the lost output of the victim or perpetrator of crime, nor the intangible effects on the community at large, such as security expenditure, property depreciation or increased reliance on private transportation. It is therefore evident that drug misuse places a considerable economic burden to the health service and society as a whole.