

Guidance for the pharmacological management of substance misuse among young people



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Guidance for the pharmacological management of substance misuse among young people

The National Treatment Agency for Substance Misuse

The National Treatment Agency for Substance Misuse (NTA) is a special health authority within the NHS, established by the Government in 2001 to improve the availability, capacity and effectiveness of treatment for drug misuse in England.

Treatment can reduce the harm caused by drug misuse to individuals' well-being, to public health and to community safety. The Home Office estimates that there are approximately 250,000–300,000 problematic drug misusers in England who require treatment.

The overall purpose of the NTA is to:

- double the number of people in effective, well-managed treatment between 1998 and 2008
- increase the percentage of those successfully completing or appropriately continuing treatment year-on-year.

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1. Introduction

Introduction – key points

- The pharmacological management of substance misuse should be in line with the recommendations in the *National Service Framework for Children, Young People and Maternity Services* (2004).
- The pharmacological management of substance misuse is only one component of addressing substance-related needs.
- Pharmacological management of substance-related need should be based on a holistic assessment of the child or young person's needs and tailored to those needs, not delivered as a 'one model fits all' programme.
- Effective pharmacological management could reduce self-harm and suicidal behaviour.
- Pharmacological management should be delivered alongside specific psychosocial interventions to provide comprehensive care for substance misuse.
- Pharmacological management should be delivered alongside mental health services for those children and young people with mental health needs.
- Pharmacological management should be delivered in the context of a clear clinical governance framework.

1.1 National policy and guidance

An organised, systematic and integrated approach to children and young people's substance-related needs across children's services is desirable. This approach is inclusive, assessing and addressing all aspects of need of the child, with the help of parents/carers and close involvement of multi-professional agencies. This approach fits with the National Service Framework (NSF) for Children (Department for Education and Skills and Department of Health, 2004), which advocates services being designed and delivered around the needs of the child. The NSF for Children sets standards and advocates access to timely, high-quality multi-disciplinary services to ensure effective assessment, treatment and support for children and their families. All children's and young people's healthcare developments should be in keeping with the NSF.

This guidance has been drawn together by the NTA under the direction of a panel of experts as a useful summary of the appropriate pharmacological treatment for substance misuse among young people under 18 years of age. The expert panel has drawn on the international research literature, relevant published guidance, and clinical experience and expertise. The following references are particularly important:

- 1999 *Young people and drugs: Policy guidance for drug interventions*, Standing Conference on Drug Abuse and the Children's Legal Centre (available from DrugScope)
- 2004 *Effective evidence based management of benzodiazepine withdrawal*, British National Formulary
- 2004 *National Service Framework for Children, Young People and Maternity Services Executive Summary* (and other NSF publications), Department of Health
- 2007a *Methadone and buprenorphine for the management of opioid dependence*, National Institute for Health and Clinical Excellence (NICE)
- 2007b *Naltrexone for the management of opioid dependence*, NICE
- 2007c *Community-based interventions to reduce substance misuse among vulnerable and disadvantaged children and young people*, NICE
- 2007d *Drug misuse: Opioid detoxification*, NICE
- 2007e *Drug misuse: Psychosocial interventions*, NICE
- 2007 *0–18 years: Guidance for all doctors*, General Medical Council
- 2007 *Assessing young people for substance misuse*, NTA
- 2007 *Drug misuse and dependence: Guidelines on clinical management*, Department of Health

1.2 The care pathway

A prerequisite of pharmacological management is a comprehensive assessment of the young person's needs and risks to that young person, and the establishment of a care plan. Pharmacological management should be provided in conjunction with psychosocial interventions and support, including risk management tailored to the individual. Aftercare provision needs to be put in place, which includes psychosocial interventions to prevent relapse.

A clear patient pathway reduces unnecessary delay and acts to improve patient safety. This can be achieved by good joint working and should include; practical support, counselling and treatment options as part of a care plan. Protocols should be developed for rapid information sharing across agencies, where this is necessary.

It is crucial that pharmacological and psychosocial substance misuse interventions are linked closely with all other services in the community that may be required, particularly with mental health services, in order that complex needs are assessed and comprehensively managed. Community-based services should develop relationships with local custodial facilities in order to encourage joint working and ensure continuity of care both to and from custodial establishments.

Pharmacological approaches should be based on individually assessed need, and should not follow a 'one size fits all' model. The range of clinical responses specifically for substance misuse should include pharmacological approaches such as detoxification, stabilisation, reduction and maintenance regimes, with integrated psychiatric and/or psychological and physical care. Systems, policies and protocols should be in place to ensure that a care pathway is developed and followed across children's services.

1.3 Dependence

This document has been written to provide guidance on the pharmacological treatment of substance misuse. This is mainly concerned with the management of physical dependence. Substance use, while a prelude to misuse, and increasing risk of dependence, is not per se sufficient for a diagnosis of dependence. The Tenth Revision of the International Classification of Diseases and Health Problems (ICD-10) defines the dependence syndrome as being a cluster of physiological, behavioural and cognitive phenomena in which the use of a substance or a class of substances takes on a much higher priority for an individual than other behaviours that once had greater value. A central descriptive characteristic of the dependence syndrome is the desire (often strong, sometimes overpowering) to take psychoactive drugs (which may or may not have been medically prescribed), alcohol or tobacco (World Health Organization, 2005).

ICD-10 also states that:

“A definite diagnosis of dependence should usually be made only if three or more of the following have been present together at some time during the previous year:

- *A strong desire or sense of compulsion to take the substance.*
- *Difficulties in controlling substance-taking behaviour in terms of its onset, termination, or levels of use.*
- *A physiological withdrawal state when substance use has ceased or has been reduced, as evidenced by: the characteristic withdrawal syndrome for the substance; or use of the same (or closely related) substance with the intention of relieving or avoiding withdrawal symptoms.*

- *Evidence of tolerance, such that increased doses of the psychoactive substance are required in order to achieve effects originally produced by lower doses (clear examples of this are found in alcohol- and opioid-dependent individuals who may take daily doses sufficient to incapacitate or kill non-tolerant users).*
- *Progressive neglect of alternative pleasures or interests because of psychoactive substance use, increased amount of time necessary to obtain or take the substance or to recover from its effects.*
- *Persisting with substance use despite clear evidence of overtly harmful consequences, such as harm to the liver through excessive drinking, depressive mood states consequent to periods of heavy substance use, or drug-related impairment of cognitive functioning; efforts should be made to determine that the user was actually, or could be expected to be, aware of the nature and extent of the harm.”*

Physical and psychological dependence should be addressed if treatment of substance use is to be successful. This document has been written to provide guidance on the pharmacological treatment of substance misuse, which is mainly concerned with the management of physical dependence. Nevertheless it is essential that access to support in managing psychological dependence is available. Such support is an essential part of the pharmacological management of substance misuse and is a credible intervention in its own right where pharmacological interventions are not required, as is the case in most substance misuse among young people. Guidance produced by NICE (2007c and 2007e) and the NTA (2008b) discusses evidence-based psychosocial interventions appropriate for young people with substance misuse needs.

Physiological withdrawal symptoms and physical problems as part of the dependence syndrome are less frequent in adolescents than in adults. For adolescents it is important to enquire about craving and impulsive behaviours, anxiety, panic attacks, depression, feelings of despair and deliberate self-harm, as these may complicate identification and management of dependence symptoms. Poly-substance use, including alcohol, appears to be the rule rather than the exception; this is important in the assessment and management of possible withdrawal symptoms. It is also important to recognise that, in children and adolescents with substance dependence, other disorders such as disruptive disorders, conduct disorders, attention deficit hyperactivity disorder, post-traumatic stress disorder, anxiety, depression and eating disorders frequently co-exist. Knowledge of the assessment and management of these co-morbid disorders is essential for the adequate assessment and management of substance dependence. These co-morbidities and multiple problem presentations also emphasise the importance of multi-disciplinary assessment and care.

1.4 Drug-related deaths

There has been much concern about drug-related deaths with the publication of the Advisory Council on the Misuse of Drugs (ACMD) *Reducing drug related deaths* report (2000), *Drug misuse and dependence* (Department of Health, 1999) and numerous research reports. As a consequence there is an emphasis placed on the importance of preventing drug-related deaths in local drug strategies.

Deaths result from numerous problems such as infections, use of multiple drugs or suicide. One study (Krausz et al, 1996) reported that 8–17% of fatalities in heroin addicts were due to suicide. Initiatives to reduce drug-related deaths mainly focus on deaths associated with heroin and methadone. However, cocaine, alcohol, benzodiazepine and volatile substance misuse can also lead to death, especially when combined with opioids.

Deaths occurring from methadone treatment occur mainly in the first few days, on average during the third or fourth day following initiation, generally as a result of accumulated toxicity. Methadone-related deaths are more often related to reduced tolerance to opioids, dose of methadone, especially in the naive user, and continued multiple illicit drug use. Fatalities from methadone toxicity have been reported at doses as low as 20 mg – though these have invariably been in non-opioid-dependent individuals who were poly-drug users (using benzodiazepines, alcohol, antidepressants or major tranquillisers). Non-opioid-dependent individuals are at risk from doses as low as this, and their risk may be exacerbated with the simultaneous prescription of a benzodiazepine, antidepressants or major tranquillisers. These deaths have often occurred as a consequence of inadequate assessment, unclear tolerance, failure to confirm use and dependence, treatment in the absence of withdrawal symptoms and a lack of monitoring. Methadone-related deaths have reduced in the last few years, probably as a result of increased supervised consumption in the initial stages of drug treatment. However, caution is particularly important with young people who may have unclear tolerance. Assessment of this risk is crucial both in initiation and in monitoring methadone treatment, especially during the early stages.

There is added concern about those who have just left custody; this concern is related to loss of tolerance. Singleton et al (2003) found that in the week following release prisoners were 40 times more likely to die than the general population and that 90% of these deaths were associated with drug-related causes. These findings are consistent with the international literature which suggests that overdose is common in those with lost or reduced tolerance. The ACMD (2000) gives guidance and numerous recommendations on issues such as risk assessment, information required, discharge arrangements and service delivery changes to ensure reduction of these deaths.

Crucially, all young people leaving custody (and their parents/carers) should be given information and advice on drug-related deaths and their prevention and be considered for

priority access to young people's specialist substance misuse treatment when returning to the community.

1.5 Ten key policy principles

These principles, established by the Standing Conference on Drug Abuse and the Children's Legal Centre (1999), inform substance misuse treatment services for children and young people. These overarching principles have been kept in mind throughout the production of this guidance and should continue to be referred to by practitioners implementing the guidance. They are based on the Children Act 1989 and the United Nations Convention on the Rights of the Child.

1. A child or young person is not an adult. Approaches to young people need to reflect that there are intrinsic differences between adults and children and between children of different ages.
2. The overall welfare of the child is paramount.
3. The views of the young person are of central importance, and should always be sought and considered.
4. Services need to respect parental responsibility when working with young people.
5. Services should co-operate with the local authority in carrying out its responsibilities towards children and young people.
6. A holistic approach should occur at all levels.
7. Services should be child-centred.
8. A comprehensive range of services should be provided.
9. Services should be competent to respond to the needs of young people.
10. Services should aim to operate in all cases according to the principles of good practice.

2. Responsibilities

Responsibilities – key points

- Informed consent for treatment is required.
- Informed consent should be gained from the appropriate person, either a competent young person or a parental responsibility holder.
- While a child or young person has a right to confidentiality they should be encouraged to involve others in their care.
- Confidentiality should be balanced against the duty to protect a child or young person from significant harm, so in some cases confidentiality may need to be breached.
- All pharmacological management is subject to clinical governance arrangements and review.
- Doctors and non-medical prescribers have a range of duties in relation to prescribing, particularly in relation to the treatment of substance misuse in children and young people, and these responsibilities **cannot** be delegated.
- All staff involved in the assessment and pharmacological management of young people should be competent in the activities they are performing.
- In the pharmacological management of substance misuse the use of medicines outside of their licence is often unavoidable. In this case proper precautions should be taken.
- A range of protocols is required to ensure consistent good practice.
- Information about the range of substance misuse interventions available in the establishment should be provided to young people and to parents/carers.
- Careful and accurate recording of information about a young person's assessment and treatment improves the understanding within the team and the quality of care for the young person.

This chapter describes the essential responsibilities of medical and non-medical practitioners in relation to performing and monitoring the prescribing of medication and their responsibilities in relation to working with children, particularly adolescents. The General Medical Council (GMC) (2007) has given guidance on the issues of informed consent and

confidentiality for those working with young people under 18. It is incumbent on all practitioners to be aware of this advice, to assess competence and to be clear that full informed consent has been sought and freely given prior to any intervention. A young person may be anxious about obtaining treatment and due care should be taken to reassure them as well as giving full explanations of the treatment and the reasons for it.

2.1 Informed consent

When providing healthcare informed consent should be given before you can proceed, the only exception to this being a medical emergency. This is not only good practice but also a legal requirement. Informed consent should not be asked for or given until the treatment plan is proposed. Support and information are often required to help young people understand what they are being asked to consent to. To be legally valid, consent should be sufficiently informed, be specific to the treatment, and be freely given by a person who is competent to do so (Larcher, 2005). It may be helpful to use consent forms that are signed and kept in the clinical records, as consent should be recorded.

Any change in pharmacological management should be carefully discussed and reasons for change carefully recorded, to ensure that consent is maintained. Anyone who gives consent can retract it at any stage in the treatment process if they wish.

If a young person is not legally competent (does not have ‘capacity’) to give consent for themselves, consent will need to be gained from someone who has parental responsibility for them, unless it is an emergency and it would be unreasonable to wait.

If a young person is competent to give consent for themselves, consent should be sought directly from them. The legal position regarding ‘competence’ is different for young people aged over and under 16.

Young people aged 16 and 17 are presumed in law to be competent to give consent for themselves. However, it is still good practice to involve their families and/or carers in decision-making.

Young people under 16 are not automatically presumed to be legally competent to make decisions about their healthcare. However, they may be competent if they can demonstrate that they are ‘Gillick’ or ‘Fraser’ competent. There is no specific age when a young person becomes competent; it will depend on the young person, their own development, and the seriousness and complexity of the treatment. It is still good practice to involve their families in decision-making.

It should not be assumed that a young person with a learning disability is not competent to make their own decisions. Many young people with learning disabilities will be competent

provided that they are given appropriate information and supported through the process. However, if a young person is not thought to be competent, then the person with parental responsibility should make the decision for them, but the young person should continue to be involved as much as possible.

Practitioners working with young people must have the skills and knowledge to assess this capacity to consent.

2.2 Assessing competence

For young people to have the capacity (be competent) to take a particular decision (give or withhold consent), they should be able to comprehend and retain information relevant to the decision, especially as to the consequences of having or not having the intervention in question, and use and weigh this information in the decision-making process.

2.2.1 Gillick or Fraser competence

Young people under 16 have a right to confidential medical advice and treatment if the provider assesses that:

- the young person understands the advice and has the maturity to understand what is involved
- their physical and/or mental health will suffer if they do not have treatment
- it is in their best interest to be given such advice/treatment without parental consent
- they will continue to put themselves at risk of harm if they do not have advice/treatment
- they cannot be persuaded by the doctor/health professional to inform parental responsibility holder(s), nor allow the doctor/health professional to inform them.

If a child, or a young person under 18 years old, is **not** competent to consent to their own treatment, consent should be sought from a person with '**parental responsibility**'. Legally, consent is needed from one person with parental responsibility, although it is good practice to involve all those close to the child in the decision-making process (see Appendix 1 for who holds parental responsibility).

2.3 Confidentiality

When discussing health and social circumstances with professionals it is reasonable to assume that a child or young person would expect that this information is kept confidential (as the information is not generally known to other people). Whenever a confidential

relationship is entered into the boundaries of this confidentiality should be discussed with the young person so that they understand what it means and how and when information is likely to be shared. It is appropriate that information is shared between professionals acting to support a young person provided that the young person is aware when the information is gathered that it is **not** confidential and will be shared with those professionals involved in their care, or later their consent is gained to share information beyond that originally envisaged, for example gaining support from another service.

The boundaries of confidentiality are:

- Information about health or substance misuse will not be passed to other people without the young person's consent; for example passing information to another service.
- Confidential information will be disclosed to others if the child is suffering, or likely to suffer, significant harm; for example to promote and safeguard the welfare of a child.
- Confidential information will be disclosed to others if another person is at risk of significant harm; for example another person is at risk or community safety is at risk.
- Where concerns arise as a result of information given by a child it is important to reassure the child but not to promise confidentiality.
- If confidential information is to be disclosed attempts should be made to communicate this to the child or young person, unless it is felt that this would be detrimental. The nature of this communication will also depend on the content, nature and seriousness of the concerns.

Despite the right to confidentiality, it is often in children and young people's best interests to have the support of their family, particularly in making and supporting decisions about their health and treatment. The Children Act 1989 therefore recommends that practitioners in contact with children should encourage them to involve their family/carers. In some cases this may not be in the child's best interest, but this should not be assumed.

Inter-agency collaboration is often required to assess and respond to the needs of vulnerable children and young people. Partnership working is a fundamental principle and is encompassed in the Children Acts of 1989 and 2004, and *Working together to safeguard children: A guide to inter-agency working to safeguard and promote the welfare of children* (HM Government, 2006a). Developing links between services will enable coherent packages of care, but it is important to continue working with the child, and gain their consent to involve the family wherever possible.

What to do if you're worried a child is being abused (HM Government, 2006b) gives more information on the procedures and legal issues in relation to aspects of child protection investigations.

2.4 Governance

Clinical governance is a term used to describe the systematic approach to monitoring and continuously improving the quality of clinical interventions. For doctors and professionals involved in substance misuse and clinical management there are a number of important elements: clinical effectiveness, competence and continuous professional development, team working, information management, patient, public and carer involvement, risk management and public health. The doctor and other healthcare professionals should be aware of and have considered these issues (Department of Health, 2007). These elements are a mix of both individual and organisational responsibilities, to ensure appropriate and effective systems necessary to meet good practice standards. The NTA (2008a) will shortly be publishing guidance on drug treatment and clinical governance recommendations.

The GMC (2006) sets out principles and values on which good medical practice is founded. There is a wide range of guidance available from professional bodies (such as the GMC, Medical Royal Colleges, the Nursing and Midwifery Council and the Royal Pharmaceutical Society), the Department of Health (2007) and the NTA (2005). Prescribing governance and an adequate understanding of the law relating to prescribing are important.

Clinicians working with drug misusers should be appropriately competent, trained and supervised. They should have annual appraisals, with evidence of competence, continuous professional development and regular audit. A supervisory framework should be in place with regular supervision and advice available. All professionals should be aware of the clinical governance framework and process within their workplace. A timely and regular audit cycle should be in place. For example, under the process of risk management, incident reporting, risk assessment and infections control, each constitutes a duty on both the individual and organisations, and may be audited to improve practice. Interventions should be provided consistent with national guidelines and in line with the evidence base.

2.5 Prescribing responsibilities

Drug misuse and dependence: Guidelines on clinical management (Department of Health, 2007) notes the roles and responsibilities of doctors and non-medical prescribers when prescribing drugs. All of these roles and responsibilities apply to doctors and non-medical prescribers.

The term 'non-medical prescribing' refers to the prescribing of medication by health professionals other than doctors and dentists, categorised by supplementary prescribing and

independent non-medical prescribing. The clinical governance requirements are similar to those of doctors (Department of Health, 2007).

Clinical care should be in accordance with evidence-based practice and within the context of a clinical governance framework. Clinical supervision and access to programmes of continuous professional development that offer staff the ability to develop skills both in managing adolescents and in addressing substance misuse problems are important means of supporting high-quality clinical practice. All staff should be competent to fulfil their roles, and work within clear guidelines.

Minimum responsibilities of the prescriber:

- Prescribing is the responsibility of the person signing the prescription – this responsibility cannot be delegated.
- Medical practitioners should not prescribe in isolation – a multi-disciplinary approach is essential. For example, doctors should work with the specialist young people's service and be an active part of the assessment and care plan.
- A prescriber should have a competent understanding of the pharmacology and clinical indications for use, dose regimes and therapeutic monitoring in young people.
- A full assessment, in conjunction with other professionals involved, should be undertaken and treatment goals set.
- The clinician has a responsibility to ensure that the person is prescribed the correct dose, both at induction and throughout treatment.
- The interventions should be consistent with national guidelines and in line with the evidence base. Any deviation should be documented, with clear reasoning and appropriate supervision sought.
- Supervised consumption is recommended for patients on initiation to pharmacological management, during the stabilisation phase, and after any relapse or instability.
- The prescriber should liaise regularly with the dispensing pharmacist about the specific patient and the prescribing regime.
- Clinical reviews should be undertaken regularly.
- Thorough, clearly written records should be kept.
- Consent to treatment with informed consent should be sought and aspects of confidentiality should be considered.

Department of Health (2007)

Special considerations when prescribing for children and young people:

- Informed consent should be appropriately sought and clarified for the specific treatment planned.
- Any child protection concerns should be disclosed within the appropriate procedures and acted on.
- Prescribing should be seen as an enhancement to other psychological, social and medical interventions.
- Substitute prescribing should only be undertaken when there is convincing evidence of current dependence.
- Specialist involvement is important for managing the substance misuse treatment of young people, and active supervision and support should be sought by generalists or those with less experience. This supervision should be part of the clinical governance requirements.
- Practitioners should ensure that they have opportunities to discuss and review their work with colleagues to maintain good and up-to-date practice.
- Prescribing of licensed medications outside of the product's licence alters the prescriber's responsibility; the prescriber should be aware of this responsibility and discuss issues with the patient and their parents/carers as appropriate.
- Parents/carers should be informed about and aware of any medications that are prescribed, with the young person's permission and continued involvement. The doctor, non-medical prescriber and the team should actively seek to involve the parents/carers (with consent from the young person).
- Settings of treatment should be appropriate for the level of observation required.
- Where withdrawal rating scales have been used action points arising from recorded symptoms should be recorded.

2.6 Skills, knowledge and training

All staff providing assessment and clinical management of substance misuse should be competent in the activities they are performing. Skills and knowledge in substance misuse work is described in the nationally recognised standards Drug and Alcohol National Occupational Standards (DANOS). There are standards for the training of specialist doctors from all the Royal Colleges as well as agreed standards on roles and responsibilities (Royal College of Psychiatrists and Royal College of General Practitioners, 2005). These standards should be used to develop job descriptions, appoint and appraise staff and professionally develop staff. Additional competences in working with children and adolescents are also published and should be utilised. These include National Standards for Youth Justice,

Health and Social Care Standards and forthcoming Children's National Occupational Standards.

Clinical supervision is an important means of supporting high-quality clinical practice. An annual appraisal for nurses and doctors should be delivered in accordance with advice from the Nursing and Midwifery Council, the Royal Colleges and the GMC respectively and in line with the clinical governance framework of the organisation.

2.7 Licensing of medications

In the United Kingdom, 'licensed' medicines are those that receive a marketing authorisation (previously called a product licence). Licensing arrangements are determined by the Medicines Act 1968 and are implemented through the Medicines and Healthcare products Regulatory Agency. For each medicine, the doses, indications, cautions, contraindications and side effects given in the British National Formulary (BNF) reflect those in the manufacturer's data sheets or Summary of Product Characteristics. The BNF also indicates when a treatment recommendation is for the use of a medicine outside the licensed indication (off-label use) for that product.

Absence of a licence does not necessarily mean the absence of evidence for the proposed interventions. Most medicines have been tested for safe and effective use only in the adult population; typically evaluation takes place between 18 and 65 years, with few medicines used in adults specifically licensed for use in the treatment of children. Medicines prescribed for a child that are not licensed for that age group or for their health problem are referred to as 'off label' and medicines that do not have a licence at all as 'unlicensed'.

Children are different from adults, their bodies metabolise medicines differently from those of adults, and young children respond differently from older children. Thus detailed care and attention needs to be applied when making prescribing decisions for children and young people, taking into account their age, weight and developmental stage (Department for Education and Skills and Department of Health, 2004). When making the clinical decision to prescribe these drugs, the risks and benefits of the treatment should be considered and fully documented.

The informed use of unlicensed or off label medicines is often unavoidable if children are to have access to the most effective medicines. Both scenarios are quite common and allowed for in legislation if the medicine is prescribed by a registered prescribing professional.

The Medicines Act 1968 and its Regulations provide exemptions that enable professionals to use or advise the use of licensed medicines outside the recommendations for the licence, or to override the warnings and precautions given in the licence. In these circumstances, the prescribing professional should be able to justify this action in accordance with a respectable, responsible body of professional opinion.

Information should be given to the young person and their parents/carers on the nature of the drug to be used, the likely effect, the timing of this effect and the safety and licensing of the medication. It would be useful if this information is available in leaflet form as well as discussed verbally. Any difficulties in literacy skills need to be acknowledged.

This information is important for a number of reasons:

- young people need to feel that their dosage adjustments are for their own comfort and safety, rather than any punishment system
- to ensure that informed consent can be given
- to facilitate understanding of treatment given including likely outcomes.

Primary care and health trusts, prescribers, dispensers and those administering medicines should take precautions to ensure that the use of off label or unlicensed medications is managed properly. There should be local safety standards and arrangements in place to monitor the use of unlicensed and off label medicines.

Markers of good practice in the prescribing of medication

National Service Framework for Children, Young People and Maternity Services: Medicines (Department for Education and Skills and Department of Health, 2004)

1. The use of medicines in children is based on the best available evidence of clinical and cost-effectiveness and safety, ideally derived from clinical trials, but also including, where appropriate, medicines that are not licensed for their age group or for their particular health problem ('off-label'), or those that do not have a licence at all ('unlicensed') in order to achieve the best possible health outcomes and minimise harm and side effects.
2. In all settings and whatever the circumstances, children and young people have equitable access to safe, clinically and cost-effective medicines in age-appropriate formulations.
3. Appropriate information and decision support is available for professionals who prescribe, dispense and administer medicines for children and young people.
4. Children, young people and their parents/carers receive consistent, up-to-date, comprehensive, timely information on the safe and effective use of medicines.
5. In all settings, professionals enable parents, young people and, where appropriate, children to be active partners in the decisions about the medicines prescribed for them.
6. Primary Care Trusts, NHS Trusts and other organisations ensure that the use of medicines in children is incorporated in their clinical governance and audit arrangements.
7. The contribution of pharmacists in the effective and safe use of medicines in children is maximised.

2.8 Licensed medications for the management of substance misuse

The following is a list of the current licensing arrangements for medications used in the management of substance misuse:

- Acamprosate is licensed from 18 years upwards.
- Buprenorphine is licensed from age 16 for those with opioid dependence.
- Bupropion is not recommended for those under 18 years.
- Dihydrocodeine is not licensed for the treatment of dependence and is not recommended.

- Lofexidine is licensed from age 18 for use in those with opioid dependence.
- Methadone is not licensed for children. 'Children' in this context is generally recognised to mean those aged 13 and younger; however, manufacturers note the lack of evidence for adolescents.
- Naltrexone is licensed for post-opioid detoxification for those over 18 years, but it is not licensed in management of relapse prevention for alcohol misuse in the UK.
- Nicotine replacement therapies are licensed from 18 years upwards.

2.9 Protocols

Ensure that good practice is standardised in a specific setting by the development of audited local policies and protocols. There should be active involvement of all staff in developing protocols. These should be based on evidence of good practice, and help to improve clarity of roles and responsibilities and understanding of these roles between different members of staff. Many of these protocols will already be available but it is important that staff are properly inducted in them and that they are regularly reviewed.

Protocols are required for:

- assessment
- prescribing
- obtaining consent to treatment/consent forms
- sharing of information, confidentiality and involvement of parents/carers
- child protection concerns
- overdose management and prevention
- supervised consumption of medication.

This list is not exhaustive. A timely and regular audit and review cycle of all protocols and standards should be in place.

All services should have written information available on the process of assessment, the types of pharmacological and psychosocial treatments available, how these interventions work, and how parents are involved in these processes.

This written information should be accessible to young people, physically available and written in a style that they can understand. It can include:

- choice and length of treatments
- consequences of untreated withdrawal, both physical and psychological
- potential benefits of seeking help
- risks of overdose and how to prevent overdose.

Written information should be discussed with an individual considering engaging in treatment, to ensure their understanding of the written word and the content of the documents. Written information may be required in different languages and formats appropriate to a range of abilities to understand it.

2.10 Data collection

Providers of services should be prepared to establish comprehensive data collection and monitoring systems. Careful and accurate records need to be kept on assessment of the young person, their ability to consent, the involvement of parents/carers, the reasons for and goals of treatment, and outcomes. A copy of the care plan should be available for the young person and their parents/carers where the parents/carers are participating in it. Accurate record keeping improves understanding within the team and the quality of care for the young person.

3. Assessment of substance misuse

Assessment of substance misuse – key points

- The key features of identification and comprehensive assessment are:
 - assessment is an overall part of care
 - assessment is an ongoing process
 - the young person and their parents or carers should be encouraged to participate
 - the goals and process of assessment should be clear.
- Key issues to be addressed at the pharmacological assessment are:
 - ascertain substance dependence, substance use history, route of use and inspection of any injecting sites
 - positive urine/oral fluid screen for drug of dependence
 - identification of objective withdrawal symptoms
 - corroboration of reported current prescribed medication
 - ascertain urgent physical health difficulties
 - ascertain any risk of suicide, self-harm or psychiatric difficulties
 - identification of pregnancy.
- Comprehensive assessment of substance misuse should include:
 - involvement of the young person, to discuss and assess their physical health, injecting behaviour, mental health and social factors related to substance misuse behaviour
 - conducting any necessary invasive investigations such as drug screens, blood tests for infectious diseases, pregnancy etc
 - parental/carers involvement
 - community substance misuse service involvement.
- Comprehensive assessment of substance misuse will often involve a multi-disciplinary approach.
- Comprehensive assessment will include assessment of all domains of functioning both antecedent and current, e.g. mental health, risk and educational ability.
- Assessment should be used to formulate a care plan of treatment interventions, each of which requires informed consent from the appropriate person before they can commence.

Galahad (2004) reported that many young people seemed uneasy about disclosing drug use. Barriers to appropriate disclosure such as lack of treatment, perception of lack of treatment or lack of skill of the assessor should be overcome. Information, in both written and oral form, should be provided during assessment about the treatment options available, both in the short term and the long term. Should dependence or problems related to substance misuse be noted, reassurance should be given that services are available to support the individual and their parent/carer.

Presenting a non-judgemental, reassuring attitude helps to establish rapport and good communication, which facilitates engagement with the assessment and treatment process. In addition, assessment should take account of the young person's cultural background and their cognitive, language and emotional development.

It is common for substance users to use local slang or terms for substances and routes of administration; these differ from region to region and change rapidly. It is important to clarify what substances are being used and how they are taken by checking with the young person, rather than guessing their meaning. The same slang name is often used in different areas for different substances.

Good assessment is crucial for the continuing care of the young person. It is essential in the development of a comprehensive care plan and the review of this care plan. Assessment is an ongoing process that should be updated fully and regularly. Comprehensive assessment is likely to take several sessions to complete in order to organise a full care plan. It is essential that there is accurate documentation of this assessment in the young person's case records. The rest of this chapter describes specific elements of the assessment process.

Key principles of identification and comprehensive assessment process:

- Assessment is an overall part of care.
- Assessment is an ongoing process.
- Assessment should be comprehensive, including all aspects of risk and child protection.
- The young person and their parents/carers should participate.
- The goals and process of assessment should be clear.

The essential aims of substance misuse assessment are:

- to treat any emergency situation
- to confirm drug and alcohol use or misuse
- to determine if there is a physical dependence and need for a pharmacological response
- to ascertain complications of drug and alcohol use/dependence
- to ascertain other mental health needs
- to ascertain other physical health needs
- to ascertain social factors that are associated with substance misuse such as offending behaviour, peer group and exploitation
- to ascertain psychological problems related to substance use, such as anxiety or behaviour disorders
- to ascertain child protection needs and the involvement of parents/carers
- to assess educational abilities and needs
- to ascertain highly risky substance use behaviour and give appropriate advice on harm reduction, including overdose risk, risk of injecting, risk of exposure to blood-borne viruses and risky sexual behaviour
- to ascertain the risk of hepatitis, blood-borne viruses, sexually transmitted diseases or pregnancy
- to offer immunisation to hepatitis B
- to ascertain capacity to consent to treatment.

3.1 Pharmacological assessment of substance misuse

Where a young person has presented for substance misuse treatment and there is an indication that a pharmacological response is required, a pharmacological assessment should be undertaken as soon as possible to precipitate an urgent intervention. Doctors and non-medical practitioners are encouraged to work closely with a young people's specialist substance misuse service during pharmacological assessment, to ensure that they are not working in isolation and are involved in the comprehensive assessment of substance misuse.

In order to determine whether a pharmacological treatment response is required physical dependence should be identified. This is determined primarily by a history of daily use of a substance for some time, the presence of withdrawal symptoms on cessation of use of the substance (these symptoms emerging within the timescale expected for that substance) and a relief of these withdrawal symptoms on reinstatement of consumption of the substance. The treatment of withdrawal symptoms will act to reduce the risk of self-harm and complications associated with withdrawal from alcohol and drugs.

Severe withdrawal phenomena can occur, e.g. alcohol dependence with withdrawal may cause seizures or delirium states, and for benzodiazepines seizures can occur. Opioid withdrawal may present with physical problems of increased sweating, diarrhoea and/or marked anxiety and agitation. Severe withdrawals or the consequences of withdrawal (e.g. delirium tremens) can in rare cases lead to fatalities. Where withdrawal symptoms are present a more detailed assessment and commencement of substitute medication may be required to ensure the provision of adequate and effective management of withdrawal symptoms on the first night in custody.

Substance use can be associated with mental health problems such as psychosis, either causal (drug induced) or aggravating existing psychotic symptoms. The presence of significant mental health symptoms such as psychotic symptoms or self-harm and suicide risk should precipitate an urgent mental health assessment.

The key issues to be addressed in the pharmacological assessment are:

- to ascertain drug and/or alcohol dependence, substance misuse history, route of use and inspection of injecting sites
- positive urine/oral fluid screen for the particular drug(s) of dependence
- identification of objective withdrawal symptoms
- ascertain corroboration of reported current prescribed medication either for substance misuse or other health issues
- urgent physical health related difficulties
- risk assessment: of suicide, of self-harm, of violence, or of psychotic or other acute psychiatric difficulties (urgent action should be taken to reduce these risks where they are identified)
- identification of pregnancy – all females should be offered and encouraged to accept pregnancy tests prior to prescribing medication, with a full explanation of the reasons for the test.

Establishing clear evidence of substance use is required prior to prescribing any substitute medication. Therefore a drug toxicology test should be undertaken, though a positive result does not necessarily denote dependence. A range of withdrawal rating scales are available that can help with determining physical dependence, including:

- Clinical Opiate Withdrawal Scale (COWS) (Wesson and Ling, 2003)
- Clinical Institute Assessment of Withdrawal – Benzodiazepines (CIAW-B) (in Baillie, 1996)
- Alcohol Withdrawal Syndrome (Bayard, McIntyre, Hill and Woodside, 2004).

However, while the use of formal rating scales may be helpful, they should be considered as an adjunct to, but not a substitute for, clinical assessment (NICE, 2007d).

Where a young person reports that they have been undertaking a pharmacological intervention by another service provider it is recommended that this treatment is continued. However, to be safe, it is clearly imperative to corroborate the prescription and compliance with treatment. Information required includes:

- name of medication
- dose including concentration of medication
- whether consumption was supervised and by whom
- compliance with the regime (including collection and consumption of medication where appropriate) from the previous service provider.

Where corroborative information cannot be gained, including both the prescription and the consumption of the prescribed medication (essentially confirmed supervised dispensing), it is unsafe to prescribe based on a young person's report alone. Drug toxicology and evidence of withdrawal signs will be required. Medication should also be re-titrated to ensure that the appropriate dose is administered. Please refer to later chapters which describe the induction process for specific medications.

3.2 Comprehensive assessment of substance misuse

This section describes the comprehensive assessment process of which pharmacological assessment is but one element. It can take some time to complete a comprehensive substance misuse assessment so it is likely to take place over several sessions. It may be that some interventions are commenced prior to full completion of this comprehensive assessment.

3.2.1 Interview with the young person

The main feature of an assessment is the interview with the young person. It is vital that they are allowed the opportunity to contribute fully to this in order to establish a clear picture of the young person's life, including substance use and how it directly and indirectly impacts on their life. The following factors should be covered in the interview.

a) *Review of substance use behaviour*

It is important to establish the quantity, frequency, route of administration, age of initiation and progression of substance misuse, and the types of substances used. This helps to define the level and severity of substance misuse/dependence and the risk factors associated with use. The pattern of young people's substance misuse may be quite sporadic with little regularity of use. This irregular use may have prevented the development of physical dependence but there may still be problems related to substance misuse that need to be addressed. The type of substance, the route of use and the age of initiation can be indicators of current or future problematic substance misuse.

b) *Risk assessment*

The multi-disciplinary team should assess and act on risks in relation to:

- mental health, such as self-harm, suicide and psychotic thinking
- violence to self and others
- physical health, such as overdose, sexual health difficulties and physical problems related to drug use such as abscess, infections and injecting by sharing drug-taking equipment
- child protection – any concerns about risk should be dealt with urgently according to local policy and procedure.

Those who use opioids are at a greatly increased risk of death during the first week of release from prison (Singleton et al, 2003). The predominant cause of these deaths is accidental drug overdose; the most likely cause is the loss of tolerance to opioids often complicated by the use of other drugs such as benzodiazepines and alcohol. Therefore advice and education on overdose prevention and seamless transfer of substance misuse treatment to a community team are vital, including arrangements for continued, regularly supervised pharmacological care where required.

c) *Context of use*

Commonly young people take substances with their peers. Having family members with substance misuse problems increases the likelihood of the young person developing substance misuse. Some young people become involved in substance misuse because they are being exploited by others, criminally and/or sexually.

d) Factors contributing to vulnerabilities and resilience

This aspect may demonstrate how the young person is getting on in school and with their family, and general social functioning, including offending behaviour. Young people may have poor insight into how substance use affects these aspects of their life. Understanding how a young person functions socially can be used in psychosocial support to explore the relationship with substance misuse and help to develop insight. Factors that support resilience to substance misuse, where they exist, should be encouraged and built upon.

Vulnerability to substance misuse includes children who:

- are 'looked after' or supervised by the local authority
- are excluded from or disaffected with school
- are involved in offending behaviour
- have mental health difficulties
- are homeless or local authority care leavers
- are living in difficult family circumstances, including those subject to abuse
- have drug- or alcohol-misusing parents
- have physical or learning disabilities
- are living in areas where there is a high availability of drugs.

Resilience to substance misuse includes:

- a positive temperament and intellectual abilities
- a supportive family environment
- a caring relationship with at least one adult
- external systems of support that encourage positive values.

(ACMD, 2006)

e) Young person's view of substance use

It is important to allow the young person to explore the advantages and disadvantages of their substance misuse from their perspective. This allows the assessor an opportunity to develop a rapport with the young person, as well as understand triggers, negative aspects and social reinforcers of substance misuse from the young person's perspective.

f) Injecting

Injecting is not common among young people but it is important to be alert to the possibility. Injecting drugs increases the risks to a young person, for example from overdose and blood-borne viruses; in addition injecting technique may be poor, which further increases risks.

Injecting drug misuse carries a substantial risk of physical complications, particularly with sharing of drug-using equipment. Assessment should elicit information on exposure to blood-borne viruses, and lead to appropriate referrals. Those who inject substances are particularly at risk from viral hepatitis (A, B and C), HIV, bacterial endocarditis, septicaemia, deep vein thrombosis, pulmonary embolism, abscesses and thrombophlebitis. Assistance should be given to help the young person to engage with needle exchange services and to consider testing for hepatitis and initiate vaccination for hepatitis A and B. For those under 16, information on viral hepatitis and other blood-borne viruses should be discussed with the young person and their parents/carers whenever possible, preferably supported by written information.

The Department of Health and Department for Education and Skills (2004) recommend that all intravenous drug users and close household contacts of intravenous drug users receive hepatitis B vaccinations. Vaccination should be commenced as early as possible, with accelerated programmes offered for hepatitis B following consent. If a young person has been held in a custodial establishment, such as a Young Offender Institution or a Secure Training Centre, they may have already commenced or completed a hepatitis B vaccination programme.

Information and discussion should be offered to all intravenous drug users about hepatitis C virus and HIV testing. It is especially important to involve parents/carers in the process wherever possible as a positive test result will have lifelong implications. Time should be allowed to take on board the information and make a decision about whether to proceed with testing. Pre- and post-test counselling should be given, by a person with the skills and knowledge to help a young person to make an informed decision.

g) History of treatment

Some young people will have previously been involved in substance misuse treatment. Exploring periods of reduced use or abstinence and how this was achieved, as well as their perceptions of treatment, can help to develop a care plan that the young person feels confident with.

Recent previous service providers that have been involved with the young person should be involved wherever possible, including services provided in a custodial setting and in Child and Adolescent Mental Health Services (CAMHS). This will help to provide a co-ordinated continuation of pharmacological or psychological support.

h) Physical health

Children and young people who misuse substances should have a physical examination. Primarily this is to establish a baseline of the health and development of the child/young person: this will include height and weight, any breathing difficulties or other health problems related to substance misuse, or other unmet healthcare needs.

Height and weight measurements should be used to calculate the Body Mass Index (BMI). If a pharmacological intervention is to be considered the dose of the drug to be prescribed should take account of the BMI as currently evidence for drug prescribing is only available for adults. In all cases the dose should be titrated according to withdrawal symptoms; however, because there is little evidence about dose in younger people, particular caution should be applied when working with young people with low body weight. Consideration should always be given to the physical and mental development of all younger persons.

Sexual health risks should also be considered and assessed, with a range of interventions available, such as chlamydia screening, hepatitis screening and vaccination, or other sexually transmitted infection risks. This may mean referral to and/or discussion with community clinics. Pregnancy should always be considered, and women should be encouraged to take a pregnancy test prior to any medication for substance misuse being prescribed, with an explanation of why this is required.

Those who use substances are more at risk of developing a number of medical conditions such as pneumonia, asthma, tuberculosis, dental caries, seizures and other neurological impairments. Many of these physical manifestations of substance misuse may not yet be present in the young person; nevertheless, one should always be alert to possible complications of substance use.

The risk of infectious diseases should be assessed, particularly HIV and hepatitis B and C. These infections are related to a history of sharing injecting equipment and/or risky sexual behaviour. Counselling and testing should be available, with full consent obtained and parental involvement as appropriate.

Ongoing close clinical monitoring of physical health needs is important as the early symptoms of drug withdrawal may mask a separate underlying physical condition.

i) Mental health

Young people who misuse drugs or alcohol often have co-existing psychiatric disorders and psychological difficulties that may affect their ability to engage with services, increasing the risk of relapse and poor compliance with treatment. These psychiatric conditions often co-exist alongside episodes of self-harm and suicidal behaviour. They may include conduct disorder, depression, post-traumatic stress disorder, anxiety, attention deficit hyperactivity

disorder or early psychosis. Young people may be receiving treatment from CAMHS in the community, and this requires assessment and confirmation.

Drug or alcohol use may directly affect mental health, particularly causing paranoid ideation, hallucinations, anxiety and depression that may mimic some withdrawal symptoms. One should also be alert to withdrawal symptoms from nicotine withdrawal that may complicate mood and anxiety disorders. It is essential that these psychiatric and psychological problems are assessed. Ongoing monitoring of mental health is essential if there is any concern about, or any history of, psychiatric or psychological difficulties.

A history of drug or alcohol overdose should also prompt an assessment of mental health. While most substance misuse overdoses are considered to be accidental, the possibility of suicidal intent should always be considered.

3.2.2 Parental involvement

Every effort should be made to involve parents or carers in the assessment and treatment of substance misuse, as involvement is most often beneficial. However, the possibility of difficulties arising from parental involvement should also be considered. There may be issues in relation to parents' own drug or alcohol use, their mental health or their fear of judgemental attitudes. Families will almost always need support to engage them in their child's care. However, the potential benefits should encourage this approach.

It is important to remember that children and young people are entitled to confidentiality so contact with families should only be made with their explicit consent (see Section 2.3).

The parent/carer's role in the assessment of the child's difficulties should include:

- history of presenting problems with details of substance use
- behaviour associated with substance use
- onset and progression of co-morbid psychiatric, psychosocial and behavioural problems
- treatment history
- developmental history
- medical history, e.g. accidents and possible head injuries
- school and vocational history
- peer relationships
- family history, e.g. significant events, such as divorce or bereavements.

3.2.3 Invasive investigations

An invasive or physical examination cannot be conducted without consent from the young person or parental responsibility holder (see Section 2.1). Some invasive investigations may be required as part of a comprehensive assessment. This would include drug toxicology prior to and during the prescribing of substitute medication, and blood tests to investigate health disorders.

Tests for disorders such as hepatitis B and C and HIV that may have a lifelong impact should be conducted only in conjunction with pre- and post-test counselling by a skilled and knowledgeable practitioner. All young people who inject substances, share drug-using equipment/paraphernalia or engage in risky sexual behaviour should be considered for counselling and possible testing.

Blood tests generally comprise:

- liver function tests
- full blood count
- tests for hepatitis (A, B and C) and HIV.

Drug testing can be a useful tool in assessment and in monitoring compliance with and outcomes of treatment. Prior to providing pharmacological interventions, a drug toxicology test is vital for establishing current use. This is to confirm self-report of opioid or benzodiazepine use and the use of other drugs that may complicate the presentation and management. Drug toxicology is also used to monitor ongoing treatment.

The clinician should be aware of detection time of the various drugs in urine or oral fluid, be able to interpret the findings and be aware of false positive and negative results. Urine testing has the advantage that drug concentrations are higher and the window for detection is longer, which can be important where young people have been held in police custody for some time. Oral fluid, while less invasive to collect and harder to adulterate, will provide results only on very recent drug use (24–48 hours) (Department of Health, 2007).

While it is essential to conduct a drug toxicology test prior to prescribing, the clinician should be aware that the results are generally qualitative and do not confirm dependence. However, the clinician should not usually prescribe substitute drugs if a urine/oral fluid test is negative, and/or in the absence of clinical withdrawal signs.

In some cases a drug toxicology test does not detect opioids or benzodiazepines even when there is a history of regular use. This may happen due to the detection time of a drug or the sensitivity of a test. This situation should be treated with extreme caution, and clear withdrawal symptoms should be detected before continuing with substitute medication, and

a non-substitute, safer alternative may be preferred. It is more likely that the person is not physically dependent if the drug toxicology test is negative and there are no current withdrawal symptoms. A clinician may need specialist support and advice if they are still considering prescribing on such occasions. Further reading about drug toxicology can be found in Department of Health (2007).

Protocol for drug toxicology

Assessment – urine sample for analysis taken in a thermal pot to help to ensure that it is actually the patient's sample should be tested immediately. This test or an oral fluid sample should always be subject to a confirmatory test from a laboratory. However, treatment may need to begin prior to the confirmatory test result.

Ongoing – urine sample for analysis collected in a thermal pot or oral fluid is recommended. These tests throughout treatment can be subject to immediate testing, but should also include some laboratory confirmatory testing.

Urine drug analysis – for urine tests it is important that the clinician is sure that the sample belongs to the individual. Supervised urination may be appropriate in some circumstances though it can be conducted only with consent. It can be seen as humiliating; it is not always practical and is generally not acceptable for those under 16. Numerous techniques are available that can avoid the need for supervised collection, such as checking the temperature of the urine in thermal cups, and the use of more sensitive dipsticks. Dipsticks can be especially useful when immediate results are required. However, temperature and dipsticks can still be tampered with. Laboratory testing should be conducted to confirm initial immediate results and to support ongoing monitoring of compliance. Confirmatory laboratory tests are more reliable than screening tests. These screening tests are quick and easy and negative results can usually be accepted as such. However, positive results should normally be confirmed.

Oral fluid drug analysis – these are useful as they can be easily supervised. They ensure certainty that the sample belongs to the correct young person and a result is often available immediately. However, the immediate results are not as sensitive and the window of detection of positive and negative results is much shorter than urine tests, which can be problematic if the young person has been held in custody.

3.2.4 Capacity to understand the treatment and give informed consent

During and following the assessment, proposals will be made to the young person about the intended course of interventions. At this stage consent will need to be gained from either the young person or the parental responsibility holder for any invasive investigations (such as urine analysis) and each proposed treatment intervention, psychological and pharmacological (see Section 2.1).

Consent cannot be requested nor competence to consent assessed (in order to allow a young person to consent themselves) prior to the proposal of an intervention. It is impossible to give informed consent or to be competent to do so if no one has yet explained the treatment that consent is required for.

4. Care planning

Care planning – key points

- Substance misuse should not be managed in isolation from the holistic management of the child or young person. A multi-disciplinary approach should be taken.
- A care plan with clear goals, agreed with the young person, should be developed and regularly reviewed.
- Parents and carers of young people should be actively encouraged to participate in the young person's care plan, with consent from the young person.
- Careful discharge planning should be in place to ensure continuity of care from universal and targeted services in the community and custodial healthcare as appropriate.

Effective substance misuse treatment and interventions to reduce the harm associated with substance misuse are best achieved in a culture of support, warmth and non-judgemental care, one that expects positive change and encourages individuals to make efforts to change.

Alcohol and drug problems should not be managed in isolation, either from one another or from the comprehensive management of the young person. The findings of numerous studies report the high prevalence of substance misuse and the common co-occurrence of co-morbid disorders with the need for greater integrated planning and management (Gilvarry, 2000; Health Advisory Service, 2001; Galahad, 2004).

When addressing substance misuse it is important that all aspects of functioning are considered and assessed: educational needs, emotional needs, physical health, mental health and substance misuse as well as any child protection concerns or risk issues such as self-harm, suicide and violence. The co-ordination of multi-disciplinary involvement may be required and if this is so it should be undertaken by a lead professional as outlined in NTA (2007).

All interventions including pharmacological management should be evidence based and not just operated on an 'it feels right' principle. Interventions should be consistent with national guidance and principles (Department of Health, 2007). If there is little evidence for the intervention, then it should be delivered according to the best empirical principles available

with clear evaluation and review processes established. All programmes should reflect the developmental needs of the children and young people in the setting, including their educational, language and emotional development. There will need to be particular consideration of aspects of programmes for those with learning disabilities.

As the initial induction and monitoring of the pharmacological intervention is proceeding, it is essential that there is further in-depth and comprehensive assessment of all risks and needs of the young person to ascertain all substance-related problems and other psychological, emotional and educational difficulties. A full care plan with clear goals should then be established and agreed with the young person, with the involvement of their parents/carers, if this is appropriate. All aspects of the care plan then need to be monitored and regularly reviewed.

4.1 Parental involvement

The following section relates to parents, carers or guardians.

As with the assessment process parent or carer involvement in the care planning and review process should be encouraged. An ethos of good communication and expectation of routine involvement at intervals throughout the treatment should be promoted. A proactive approach should be encouraged. Parents (with consent from the young person) should be invited to all meetings; of particular importance would be their involvement in care planning and discharge planning sessions with their child.

Communication methods should be established with parents; mobile phone and landline numbers, grandparents' numbers and email addresses should be obtained as appropriate to the young person's circumstances as soon as possible. These contact details can then be stored in case files (with consent) to facilitate contact.

There are a number of reasons for the involvement of parents, including:

- to ensure appropriate parental responsibility for the child
- parental responsibility holder consent may be needed for treatment for some children and young people
- to give information to the parent/carers on the range of interventions and the specific interventions required for their child
- to improve communication with the young person
- to reframe anxieties for parents/carers and young people
- to provide sources of support for children and young people

- to seek help and support for those parents/carers with substance use problems or mental health difficulties
- to seek help and support for families with difficulties
- to help to monitor compliance with medication.

Some children may not be involved with either of their parents. In such cases active involvement from any responsible adult who has a relationship with the child should be encouraged. This may include a social worker, an older friend or a mentor. Evidence suggests that a caring relationship with at least one adult can be a protective factor to reduce the risk of development of substance misuse problems.

Common themes of these sessions should be relapse prevention and management, harm reduction techniques, overdose prevention, and continued motivational work after the completion of treatment for both the young person and their parent/carer. Other areas would include knowledge of the progress made in all domains by the child, the support structures needed to be in place and support for parents.

4.2 Integrated service provision

Young people, particularly those under 16, who are identified as having a substance misuse problem, or are at risk of progression to problematic use, should be supported and encouraged to participate in substance awareness and education on facts about substances, motivational work and relapse prevention activities (NICE, 2007c). Substance misuse services should be adapted to the needs of the age and maturity of each young person to optimise participation and effectiveness.

Early drug and alcohol initiation is seen as a high risk marker for future substance misuse. Quite often these young people will require intensive support. Specialist provision may need to be organised such as family support and interventions, educational assessment and return to appropriate educational settings, mental health services and intensive youth support services. All should be linked with young people's substance misuse services by a care plan co-ordinated by a lead professional.

Prior to any court appearance arrangements need to be put in place to ensure continuity of care should a young person be held in or sentenced to custody. This is crucial if young people are going to be helped to stay in treatment and continuity of care is to be established. All young people should be encouraged to take their substitute medication in the morning prior to the court appearance. Local protocols should be negotiated with the Youth Offending Team (YOT) for sharing of information and joint working arrangements to make any admission to custody as smooth as possible.

The period immediately following release from custody is a time of considerable vulnerability, especially to a relapse into drug and alcohol use with an increased risk of overdose and death. For those being discharged from custody on continuing prescribed medication a custodial establishment is likely to contact the community team so that an appointment is already arranged immediately following release, with careful handover of the prescription. Close working relationships between the custodial establishment, specialist community substance misuse service, the YOT and Resettlement and Aftercare Programme, where available, are central to securing good integrated care.

Pre-release meetings should take place if possible between the custody team, the YOT worker, the specialist community substance misuse team and a CAMHS representative (where appropriate). There should be documented action points from the meetings (stored in clinical records) which are shared with all members of the team to ensure continuity and good practice in recording concerns and action. Parents should be invited to these meetings, with support provided for them too when their child is discharged.

5. Pharmacological approaches

Pharmacological approaches – key points

- Pharmacological interventions for substance misuse can be used:
 - as an emergency response
 - to stabilise substance misuse
 - to detoxify from substances
 - to ameliorate withdrawal symptoms
 - to prevent relapse.
- Pharmacological interventions for substance misuse in children and young people lack a strong evidence base, so extra care and caution should be used.
- Pharmacological interventions should be:
 - preceded by an assessment
 - preceded by a drug screen
 - titrated against withdrawal symptoms
 - closely monitored and consumption supervised
 - part of a care plan, which includes psychosocial interventions.
- Initiation of pharmacological management of substance misuse should be accompanied by support from the specialist substance misuse treatment service and from the young person's parents/carers wherever possible.
- A treatment regime should be chosen according to individual need and in consultation with the young person. A young person's parents/carers should be involved whenever possible.
- Clear procedures for responding to emergency overdoses should be in place. This should include access to naloxone and staff who can administer it and perform resuscitative procedures.
- A period of stabilisation of at least 5 days is required for opioid prescribing, before reaching a decision on whether to adopt a maintenance or detoxification regime.
- Longer-term stabilisation on opioids or detoxification from opioids, alcohol or benzodiazepines may be required. Additional ameliorative prescribing to control any withdrawal symptoms may also be required.

- In cases of poly-drug dependence concurrent detoxification is **not** recommended. Alcohol detoxification should be completed first, followed by benzodiazepine detoxification and finally opioid detoxification.
- Amelioration of withdrawal symptoms may include non-pharmacological interventions, such as adequate hydration in addition to any prescribed medication.
- Pharmacological adjuncts to relapse prevention lack evidence in young people and are not recommended for routine use; they should be used only in conjunction with other support for the young person and with specialist advice.
- Young people inducted into pharmacological treatment will require careful monitoring and supervised consumption of their medication.

This chapter is concerned with the general principles of prescribing and choosing a prescribing regime, and more detailed prescribing protocols are described in later chapters. Pharmacological management of substance misuse does not constitute appropriate stand-alone treatment. Substitution with pharmacological agents should be seen as a ‘structured doorway’ into other forms of psychosocial treatment (aimed at motivating the young person to become stable and/or abstinent, as well as at improvements in all domains of function). Pharmacological interventions should not be commenced, apart from emergency and urgent treatment, without a clear care plan that includes psychosocial interventions.

Pharmacotherapy for substance misuse is directed at a number of specific areas, including:

- treatment of overdose and other emergencies
- substitute prescribing
- detoxification
- amelioration of or adjunct to amelioration of withdrawal symptoms
- adjunct to relapse prevention.

For young people, adverse effects directly related to drug and alcohol misuse are more often related to intoxication rather than dependence. Many young people may have a ‘binge drug/alcohol history’ but this in itself would not denote a requirement for a pharmacological intervention. It is important that anxiety symptoms and/or an anxiety disorder are not confused with withdrawal symptoms and inappropriate treatment commenced.

Regular, though non-daily, non-dependent injecting of opioids is not necessarily an indication for substitute medication. However, if there is chaotic misuse with unclear tolerance and with concern of overdose, a prescription might offer an opportunity to

stabilise behaviour and provide overdose protection. However, this form of pharmacological intervention should be undertaken only by a specialist.

While there is substantial evidence for pharmacological interventions in adults this is not the case for children and young people. This is partly due to a lack of clinical trials for controlled drugs in minors, and partly to the relatively new initiative to provide pharmacological interventions for substance misuse to children and young people. For some drugs used in clinical management, there is little evidence on dose, on duration of treatment, or on adverse effects. Young people respond to drugs differently to adults, these responses being influenced by the physiological and psychological changes that occur in adolescence. In essence, children are not little adults, and it is essential that dose is carefully titrated against withdrawal symptoms to ensure that a young person does not overdose.

Commencing a new prescribing regime can affect sleep and eating patterns and cause distress. It is recommended that young people and their parents/carers are forewarned of this and that there may be a need for additional food and hydration especially at night to help alleviate sleep problems which can be compounded by hunger and dehydration. Additional food and drink can be helpful until better sleep and eating patterns return and the risks of malnutrition, anorexia, hypothermia and hypoglycaemia are alleviated (Department of Health, 2006).

5.1 Initiating prescribing

The aim of prescribing a substitute drug for someone with physical dependence is to prevent withdrawal symptoms and further use of illicit drugs. A diagnosis of physical dependence should be made prior to initiation of medication; this is established by history, physical examination and corroborative evidence such as toxicology and information from other professionals. The history of substance misuse should show regular daily use of the specified substance over a prolonged period.

5.1.1 What to prescribe

Prior to the initiating of any prescribed treatment, practitioners must familiarise themselves with section 2.5 of this document 'Prescribing responsibilities', on pages 13-15 of this document. It is usual to consider a long-acting drug, for example:

- methadone and buprenorphine for opioid withdrawal
- chlordiazepoxide or diazepam for alcohol withdrawal
- diazepam for benzodiazepine withdrawal
- lofexidine, which may be useful in treatment of withdrawal from opioids, particularly if there is mild physical dependence, unclear tolerance and a short history of use.

The doctor or non-medical prescriber should be aware of the licensing of drugs and its relevance to young people (see Sections 2.7 and 2.8).

5.1.2 When to start

Pharmacological management is required if the young person is physically dependent on drugs and/or alcohol. Young people should not experience untreated withdrawal symptoms. However, the doctor or non-medical prescriber should be sure that the symptoms are those of withdrawal and not exclusively those of a co-morbid disorder, or distress related to intoxication or post-binge or psychological difficulties.

- The dose should be titrated against withdrawal symptoms.
- The urine/oral fluid result should be positive for the drug(s) considered.
- If the urine/oral fluid result is negative then clear and unambiguous withdrawal symptoms need to be observed and recorded. If there is any doubt a further period of observation is warranted prior to any prescription. If there is any continued doubt then more specialist advice is required.
- Titrate the dose throughout the first day and then at least once a day for a further 3 days – at least until steady state is achieved.
- Doses of all drugs should be supervised.
- Only oral preparations of the prescribed drugs should be dispensed.
- There is no indication to prescribe injectables to young people.

5.2 Settings of treatment

Pharmacological management can be undertaken in a range of settings: specialist substance misuse treatment services, CAMHS, GP surgeries, and in-patient and residential services. Different arrangements for the titration and monitoring of pharmacological management may apply as a result of this, and GPs are strongly encouraged to work with specialist substance misuse treatment services to ensure that adequate monitoring and titration arrangements can be put in place. The minimum recommended is:

Titrate the dose throughout the first day and then at least once a day for a further three days – at least until steady state is achieved.

In community settings a supportive home environment is advantageous as this allows opportunities for support to be provided by parents/carers or another significant adult. Strong social support structures can help with compliance with medication and the provision of emotional support during induction and detoxification. Where a young person lives independently or in a non-supportive environment it would be beneficial to encourage

them to live temporarily with a relative or other supportive adult during significant changes to pharmacological management. Supporting adults, parents and carers will gain from meeting with the treatment provider and being familiarised with likely responses to the medication and alerted to possible problems and side effects. Parents/carers should be encouraged to attend overdose prevention and resuscitation training courses, or at least be given some information on these subjects by the service provider. This will improve the identification of and response to overdose should it occur.

Induction onto, and detoxification from, prescribed medication and the cessation of alcohol and drug use are likely to cause anxiety. The treatment provider needs to offer as much key-worker support as possible, and in addition 24-hour support from a parent or carer cannot be overvalued. Undertaking induction onto, or detoxification from, prescribed medication is not recommended for young people without suitable support mechanisms being in place. In some areas temporary specialist foster care places may be available where home support is lacking.

For the more complex cases, day care settings with active parent/carer support or residential settings may be required. The most severe and complex cases, or those where home support systems cannot be found, may require in-patient or residential services in order to induct onto or detoxify from medication. It is not advisable to place young people in custodial or secure children's homes merely to meet substance misuse treatment needs as these establishments have been developed primarily to meet other needs.

5.3 Adopting a regime

Once a decision has been made to undertake pharmacological management, there are a range of regimes that can be used. These depend on the needs of the young person and on the goals of the treatment.

5.3.1 Emergency treatment

For young people who are excessively sedated or unconscious, regardless of causation, emergency procedures should be put in place with immediate transfer to the local general hospital.

Service providers are encouraged to have naloxone available for use in case of opioid overdose. All personnel should be aware of the location of this medication. Care should be taken with naloxone; it is short acting and may therefore need to be administered on several occasions to overcome the effects of overdose. Those young people who require this emergency procedure should be transferred urgently to the local general hospital, with naloxone available en route. It is recommended that staff trained in the administration of naloxone and resuscitative procedures are available during the process of titration onto

medication. There should be a protocol on the use of naloxone that is known by staff and capable of implementation and audit. The protocol for the particular route of use will depend on the setting and availability of trained staff in the institution. Protocols should be in place and agreed with all personnel.

If a practitioner or any person believes a child or young person to be suffering from possible alcohol poisoning, any decline in consciousness should trigger a transfer to general hospital, to ensure both treatment and review of any poly-substance use. Staff trained in resuscitative procedures should be available on all shifts.

5.3.2 Substitute prescribing

The main purposes of substitute prescribing are:

- to provide treatment for withdrawal symptoms via induction onto substitute medication upon assessment of dependence on opioids, alcohol or benzodiazepines
- to keep side effects to a minimum and reduce the need for further illicit drugs
- to continue an established prescription from another provider, including those in custodial settings. There is good evidence that engagement with community specialist drug programmes following release from custody may have beneficial effects on health and on offending behaviour (Mattick et al, 2002)
- to reduce the risk of fatal drug overdose especially upon release from custody.

The prescribing of substitute medication should be commenced with a short period of stabilisation, followed by a planned detoxification regime or maintenance for opioid dependence. Detoxification or maintenance decisions should be based on clinical need and follow a comprehensive assessment.

The term ‘stabilisation’ means the moderating and control of withdrawal symptoms during a given period of time of no less than 5 days. Stabilisation is achieved through a process of dose induction – the gradual introduction of medication titrated in response to withdrawal symptoms.

A short stabilisation period permits time for input from professionals from other services, including custodial establishments, to inform decisions for the care plan. Dose reduction regimes or maintenance should be tailored to the individual, shaped by a realistic appraisal of treatment goals between the young person, their parents/carers and the clinical team.

A young person expecting to commence a custodial sentence in the near future would benefit from continuity of care between the community and custodial settings. The YOT

can act as a contact between the services and can provide advice on the most likely custodial establishment that the young person may be sent to. Discussions can then be entered into with the custodial establishment regarding continuity of care options in this site.

Increasingly custodial establishments are encouraged to provide a range of pharmacological interventions for substance misuse and continuity of care with community services. As such detoxification prior to transfer to custody may not be required as the custodial establishment may be willing to continue a maintenance regime, where it is in the best interests of the young person. However, each custodial establishment is different and as such contact should be made with each custodial facility and plans for individual care developed rather than making assumptions about the type of interventions available.

Where there is a high likelihood of a young person returning to injecting opioid use upon release from custody, maintenance of the prescription while in custody may be provided both on the grounds of engagement in services and stabilisation of all domains of functioning, and on the grounds of post-release overdose prevention. Random clinical testing for illicit drug usage should form a part of any maintenance programme. It is imperative that community settings are involved in the continuation of the care plan and have contributed to its formation prior to the discharge.

Maintenance with opioids provided alongside psychosocial interventions can enable users to achieve stability, reduce drug use and other illegal behaviours and demonstrate improvements in many domains of functioning. Maintenance as a goal remains controversial in young people with little evidence on outcome to guide the clinician. Most clinicians would suggest that maintenance with no time-frame of reduction for young people, especially those under 16 with a short opioid history and few other difficulties, would not be recommended.

However, maintenance may be a viable option provided that there is a regular and frequent review of the care plan. This option of maintenance in the short term might be particularly important to a young person with a history of chaotic use who has not previously engaged in treatment or who has not stabilised in the community environment. It is, however, somewhat different for the older adolescent (17–18 years and onwards), who might have a long history of opioid use. In this case maintenance over a longer period should be considered with goals reviewed regularly.

It may be appropriate to set up a formal detoxification regime, agreed with the young person and their parents/carers. Decisions on the regime should be based on individual needs. The NICE (2007c) guideline on opioid detoxification recommends regimes that can last up to 12 weeks. A period of stabilisation followed by detoxification may be appropriate for some young people in line with their care plan and review.

In some instances young people and their parents/carers may wish to reduce or stop substitution drug therapy. This option should be offered and discussed with the family and young person. The opportunity to be drug-free may be particularly important, but should be balanced against the potential risks of such a strategy. All young people and their parents/carers should be warned about the increased risk of overdose, both from reduction of tolerance and relapse into poly-drug use. It is essential that those who have been on prescribed opioid replacement with slow reduction or had detoxification should be engaged by appropriate psychosocial services and support. Those who are recently abstinent have a significantly high risk of overdose and relapse into drug use.

5.3.3 Detoxification

Detoxification refers to the process by which the effects of drugs are eliminated from dependent users in a safe and effective manner, so that withdrawal symptoms are eliminated. This process may be carried out by using the same drug, or another which has a similar effect, in decreasing doses. It can also be assisted by the prescription of adjunctive medication to reduce withdrawal symptoms (NICE, 2007c).

Opioids

There are several pharmacological options for opioid detoxification, including non-opioid based medication. Opioid detoxification will depend on:

- the young person's wishes and needs (and parental considerations)
- the setting of detoxification
- the severity of physical dependence and history of dependence
- other complex needs, e.g. mental health and pending custodial sentence.

For many young people, especially those under 16 years and with a short history of mild opioid physical dependence, detoxification is considered appropriate. For some, particularly those older adolescents with more complex problems and a longer history of opioid and poly-drug dependence, clinicians may wish to stabilise for a period of up to a few months, using methadone or buprenorphine with the objective of stabilising other aspects of life, and improving functioning with parents/carers and peers. Once some stabilisation is achieved, the methadone or buprenorphine can be gradually reduced.

When determining the dose, duration and regimen of opioid detoxification, healthcare professionals should, in discussion with the young person and their parents/carers, when appropriate, take into account in accordance with NICE (2007c) the:

- severity of the dependence
- stability of the young person (e.g. other substance dependence and mental health issues)

- context and setting of the detoxification
- pharmacology of the chosen detoxification medication and any adjunctive medication
- possibility of a custodial sentence or move to secure accommodation
- risks of self-harm, overdose or death
- practical difficulties in assessing dependence and the associated risk of opioid toxicity early in treatment.

NICE (2007c) states that the duration of opioid detoxification should normally be up to 4 weeks in an in-patient or residential setting and up to 12 weeks in a community setting. Following successful opioid detoxification, and irrespective of the setting in which it is delivered, continued treatment should be offered. This should take the form of interventions designed to provide support and monitoring to maintain abstinence. This should normally be for a period of at least 6 months (NICE, 2007c).

Alcohol

Though alcohol dependence is not common in young people, one should be alert to the possibility of dependence in those who are drinking excessively or who binge drink. Alcohol misuse is commonly associated with other illicit and prescribed/over-the-counter drug use in younger people. For all those young people who report alcohol and drug use, a careful and comprehensive assessment of alcohol use should be made. A minority of young people may be dependent on alcohol, making them at risk of more serious withdrawal complications, such as delirium tremens and seizures. These two conditions are potentially fatal, so it is essential that all young people are thoroughly assessed and receive detoxification when required. If they are not dependent, it is important to address alcohol misuse using brief interventions, family interventions and individual motivational therapy (Heather, Raistrick and Godfrey, 2006 and NTA, 2008b).

Benzodiazepines

Benzodiazepines are misused by young people, often alone or together with other illicit drug misuse, including for symptomatic relief following stimulant use, or to boost the effect of methadone or other opioids. A further group may be prescribed benzodiazepines for anxiety states or sleep difficulties. Cessation of benzodiazepines can lead to a recognised withdrawal state, where there is risk of seizures. Other withdrawal symptoms include anxiety, insomnia, nausea, headaches and tremor. In the most extreme cases the young person may experience psychotic agitation, depersonalisation or delirium. A slow reducing approach should be taken to detoxification.

Poly-substance dependence

In cases of current dependence on a combination of alcohol, opioids and benzodiazepines, more than one reduction regime may be required. Prescribing should proceed with additional caution due to the interaction of these drugs. In the context of opioids and physical dependence on alcohol, pharmacological management of both dependences should commence at the same time, and the alcohol detoxification regime should then be managed with the opioid dependence stabilised (generally using buprenorphine or methadone) until the alcohol detoxification is complete (NICE, 2007c). Such management may assist in reducing the risk of impulsive self-harming behaviour.

For dual alcohol and benzodiazepine dependence, clinicians may wish to combine the regimes using an increased level of chlordiazepoxide for the first seven days to cover both alcohol and benzodiazepine withdrawal regimes. Following this the chlordiazepoxide can be converted to an equivalent once daily dose of diazepam to manage the benzodiazepine dependence; this should be a planned gradual reduction which is regularly reviewed.

5.3.4 Amelioration of withdrawal symptoms

Withdrawal from drugs and alcohol may cause distressing symptoms that may require additional supportive management and pharmacological responses at times. These ameliorating regimes are not in themselves appropriate to use for detoxification alone but are adjuncts to ease distress. Adjunctive treatment of symptoms during withdrawal should be regarded as part of active clinical management with due care and risks considered.

NICE (2007c) suggests caution when prescribing adjunctive medication:

- Only use when clinically indicated, such as agitation, nausea, insomnia, pain or diarrhoea.
- Use the minimum effective dosage and number of drugs needed to manage symptoms.
- Be alert to risks of adjunctive medications, as well as interactions between them and opioid agonists.

Patients should be monitored frequently during the induction/stabilisation phase to ensure that symptoms are controlled – deaths have occurred in the past as a consequence of uncontrolled vomiting and dehydration during detoxification in custody. Vomiting and diarrhoea should therefore be managed by effective hydration and if necessary prescribing of carefully monitored anti-emetic and anti-diarrhoeal medication. In-patient care is recommended if symptoms are not adequately controlled within 24 hours or where there is a clear indication of significant medical complications developing. The Department of Health (2007) concludes that there is no systematic evidence that any of these symptomatic

medicines work to improve the outcome of opioid treatment though they may be useful to the clinician in situations where for safety reasons initial dose titration should be undertaken with extreme caution. Particular care is needed concerning the risk of poly-pharmacy and ensuring that appropriate supervision and support are in place in each case.

The following medications are suggested for adjunctive therapy, where required (Department of Health, 2007):

- diarrhoea – loperamide
- nausea and vomiting – metoclopramide, cyclizine or prochlorperazine
- stomach cramps – mebeverine
- muscular pains – paracetamol or non-steroidal anti-inflammatory drugs.

Symptoms such as anorexia, hypothermia and hypoglycaemia are common problems during the early stages of drug withdrawal. Young people should be encouraged to increase their intake of food, naturally sweetened drinks and other fluids during this phase. Additional food and fluids may help during the recovery phase of withdrawal, when the appetite returns and sleep problems occur, to ensure that these problems are not further aggravated by hunger or thirst.

Insomnia is a common symptom of stimulant, opioid, alcohol and benzodiazepine withdrawal. This may be disabling, causing significant anxiety and distress, and should be regarded as a potential risk factor for self-harm and suicide. It is recommended that a range of non-pharmacological interventions should be available to young people experiencing insomnia, such as support and access to sleep advice.

Prescription of hypnotics should be considered very carefully. If insomnia becomes particularly problematic, a short-acting hypnotic may be prescribed for a limited period (a few days) and reviewed according to patient response. This action should be reserved for those who have not responded to other sleep aids and who have completed detoxification or stabilisation of medication and yet have not been able to recover their sleep patterns. These hypnotic drugs are in themselves dependence forming and liable to misuse. The possibility of interaction between methadone and hypnotics should also be considered when deciding on treatment. Continued insomnia should be assessed; this may be related to tranquilliser withdrawal, unrecognised depression or other physical problems.

Where insomnia has not been resolved with non-pharmacological approaches and where it is causing daytime fatigue and/or distress, a short course of a short-acting benzodiazepine (loprazolam, lorazepam, lormetazepam and temazepam) or Z-drug (zaleplon, zolpidem or zopiclone) may be considered (Department of Health, 2007 and NICE, 2004). These short

courses should last no more than a few days as dependence can develop. In severe cases advice should be sought from an addiction or CAMHS psychiatrist.

It is **not** appropriate to prescribe anti-depressant drugs such as mirtazepine just to use its sedative properties. The use of anti-depressants in young people needs to be very carefully managed and they should not be used unless in conjunction with child and adolescent psychiatric advice and in accordance with NICE (2005) advice.

5.3.5 Adjunct to relapse prevention

Some drugs are useful in helping to maintain abstinence by blocking the effects of opioids or alcohol. However, they are not without complications. They have little evidence base for use in young people and should be carefully considered before prescribing is initiated. In general, because of the lack of evidence in young people, the use of this medication is not recommended. If it is considered, the young person should be highly motivated, aware of the potential adverse effects and able to access a wider programme of care from community specialist teams (and family members/carers where possible) who have agreed to support the young person (NICE, 2007b). Supervised consumption of this medication is recommended. It may be considered for older adolescents but should be part of a comprehensive care plan, supervised and regularly reviewed.

5.4 Monitoring the induction process

It is essential that those who are undergoing pharmacological interventions are monitored closely. Young people should be seen by the specialist substance misuse treatment team several times on the first day during the initial titration and then at least once daily for a further three days or until a stable dose is reached. This is to observe for problems either as a consequence of withdrawal symptoms, such as fitting, vomiting and distress, or for side effects of medication, such as a sudden reduction in blood pressure, drowsiness and excess sedation. Parents/carers wherever possible should be encouraged to help with this monitoring and given clear information about signs to look for and who to contact if they have concerns.

Recorded observation should be ongoing throughout the first phase of pharmacological management, and ideally should last for the whole of the stabilisation or detoxification period. This should include frequent clinical reviews, usually co-ordinated by a nurse. Reviews should consist of general observation, gait, and physical determinants such as blood pressure, pulse, temperature and signs of agitation or sedation. These symptoms could reflect inadequate or excessive medication or poor tolerance during induction phases.

Protocols should be available on observational methods such as general demeanour, blood pressure, pulse, temperature and urine/oral fluid testing and these should be recorded.

Breathalysers can be used to ensure that no illicit alcohol use is continuing during an alcohol detoxification.

Any signs of drowsiness, slurred speech, droopy eyelids, or lowering of blood pressure, or any security information received that might indicate illicit drug or alcohol use or excess dose of prescribed medications should be acted upon (see Section 5.4).

Withdrawal scales in relation to drugs and alcohol can be useful, and they allow careful and routine enquiry with the young person about their symptoms. Symptoms and the response of the team to the symptoms should be recorded when these scales are used. However, while they are useful, should never take the place of clinical assessment and regular review.

It is necessary to assess routinely and frequently the mental state of the young person, paying particular attention to the increased likelihood of self-harming as withdrawal proceeds. It is imperative that the drug and alcohol dependence is adequately and appropriately managed, so as to reduce incidence of self-harming behaviour and suicide. Use of rating/monitoring scales for mental state would again be useful in the day-to-day observation and monitoring of these young people.

Ongoing reviews by the same team should occur where any extended prescribing regimes are in place, to ensure that the original plan is adhered to, or adjusted if circumstances change.

5.5 Supervised consumption of medications

Department of Health (2007) and NICE (2007a) recommend that all new prescriptions for the management of substance misuse are given under supervised consumption conditions for approximately three months, tailored to individual need.

Community pharmacists will be involved in the dispensing of supervised medication. Initially there should be discussions with the service provider on the identity of the young person and if appropriate with a parent/carer. It is good practice to liaise frequently with the pharmacist.

In the event of suspicion of other drug use, intoxication or days where medication has not been dispensed, the specialist service should be contacted prior to medication being dispensed. Specialist services may need to reassess the young person. If there is sedation which continues despite withholding drugs, an urgent response and possible in-patient admission may be required.

Parents/carers can be encouraged to supervise the consumption of take-home medication during weekends and public holidays when professional supervision is not available. This

is appropriate where the parent/carer has received advice by a pharmacist or the service provider. Induction and detoxification regimes are best not started when professional supervision is not available (e.g. at the weekend).

Buprenorphine

Particular care needs to be taken in the supervision of buprenorphine as it will become inactive if swallowed. It should be allowed to dissolve slowly under the tongue and such supervision can take at least 10 minutes. Sometimes local protocols are available with the pharmacist to crush the tablets, allowing faster supervision.

An advantage of the longer supervision period is the opportunity to engage with the young person, increasing informal discussion during the observation period.

6. Opioid prescribing protocols

Opioid prescribing protocols – key points

- The use of methadone, buprenorphine and lofexidine is recommended.
- Dosage for a young person is likely to be relatively lower than for adults though there is no evidence base to guide this.
- Methadone or buprenorphine should not be prescribed in the absence of positive drug testing and/or observable withdrawal symptoms. Non-opioid medication, such as lofexidine, should be used as an alternative if prescribing is deemed necessary and tolerance is unclear.
- A period of at least 5 days' stabilisation should be achieved prior to detoxification regardless of the medication used, unless lofexidine is used for safety reasons because of concerns about dependence and tolerance.
- Stabilisation on a dose may be appropriate to manage an individual's needs.
- In induction always titrate doses to withdrawal symptoms and observe for over-sedation.
- Detoxification should be a gradual process; consider up to 12 weeks, and in some cases longer tapering of dose may be required.
- For all detoxifications adjunctive medical and non-medical treatments may be required, though evidence for symptomatic prescribing is poor.
- Arrangements should be put in place to help to ensure continuity of care from custodial to community settings.
- Naltrexone should only be used in young people where there is strong community support from both substance misuse specialists and family/carers. Young people should also be highly motivated and understand the full implications of the medication.

This chapter guides the practitioner in the management of opioid dependence. In line with NICE (2007d) guidance in this document the term 'opioid' will be used to refer to the whole group of natural, semi-synthetic and synthetic compounds that act on opioid receptors. It includes guidance on induction, stabilisation and detoxification regimes using methadone, buprenorphine and lofexidine. All of these drugs are effective in treatment.

Maintenance is generally not a goal in adolescents though a small but perhaps significant minority of young opioid users may benefit from short-term maintenance followed by a slow reduction. This could last for some months depending on the severity of dependence, social support structures and ability to safely reduce prescribed medication without relapse. As a caveat to all pharmacological approaches, they should be administered within an overall comprehensive care plan.

Before commencing pharmacological management for opioid use physical dependence should be established. The full range of indicators of dependence should be considered in making prescribing decisions.

High-quality reviews on the three main methods of detoxification from opioids are available (NICE, 2007a and 2007d and Department of Health, 2007). Although these relate to adults (those aged from 16) there was minimal evidence available to be included in these reviews on detoxification from opioids specifically from populations of young people (those under 18 years). The methods of opioid detoxification are:

- tapering methadone
- tapering buprenorphine
- use of lofexidine.

6.1 Medication for the treatment of opioid dependence

Prior to the initiating of any prescribed treatment, practitioners must familiarise themselves with section 2.5 of this document 'Prescribing responsibilities', on pages 13-15 of this document. Methadone and buprenorphine are both approved for the treatment and prevention of withdrawals from opioids, though licensing arrangements differ in young people. The choice of methadone or buprenorphine depends on a number of factors, including:

- level of opioid use
- safety, e.g. risk of diversion and overdose
- concomitant dependence on other drugs such as benzodiazepines and alcohol
- severity of dependence
- patient preference
- history of use of either or both drug(s) in treatment
- retention and treatment compliance
- prescribers' experience
- context and setting of treatment.

The Department of Health (2007) notes that evidence suggests that methadone is more likely to retain people in treatment, though the evidence for the relative effectiveness of methadone and buprenorphine in preventing illicit drug use is mixed. NICE (2007a: p4) recommends:

“If both drugs are equally suitable, methadone should be prescribed as the first choice.”

In order to make decisions about which medication is most suitable in the treatment of opioid dependence, it is important to understand the differences between them, and how they compare to heroin.

The timing of the onset of withdrawal symptoms will depend on the opioid that an individual has developed physical dependence to; this is due to the half-life of the opioid. The shorter the half-life the quicker withdrawal symptoms will be observed and the longer they are likely to last, as the opioid will take longer to completely stop its effect. The half-life of a drug is the name given to the time it takes for blood levels of a drug to drop to 50% of the peak concentration.

Heroin fits opioid receptors almost perfectly and stimulates them strongly. It also inhibits the release of noradrenalin, which causes the body to produce more noradrenalin.

Continued use of heroin inhibits the release of this noradrenalin. On cessation of heroin use, noradrenalin is released in excess of normal levels, causing many of the unpleasant symptoms associated with heroin withdrawal (Preston, 2004). The half-life of heroin is around 3 hours.

Methadone binds well to opioid receptors and stimulates them in a way that is similar to heroin. It has a less intense but longer lasting effect. It has the same effect on noradrenalin production as heroin (Preston, 2004). The half-life of methadone depends on whether it is a first dose or part of daily consumption. The half-life of a single first dose is around 15 hours; the half-life of regular methadone consumption is around 25 hours (Preston, 1996).

It is generally advised that methadone following a stabilisation period of 5 days should be slowly reduced in a linear fashion. The reduction should last at least 14 days, perhaps longer if withdrawing from prescribed methadone or buprenorphine rather than illicit heroin. It would be likely to be longer in those with more severe and longer dependence. Short detoxification should be recommended only for those with short histories of dependence who have titrated to low levels of methadone and wish to detoxify quickly and have given their full consent to do so. Evidence suggests that a slower detoxification from methadone is associated with improved completion rates. The duration of opioids detoxification should:

“... normally be up to 4 weeks in an inpatient/residential setting and up to 12 weeks in a community setting.” (NICE, 2007d: p15).

The detoxification plan should be reviewed at least weekly, more frequently if the detoxification is rapid, with review of the overall care plan occurring frequently during the detoxification process. Withdrawal symptoms can present later in the detoxification period rather than in the early phase of the process. Equally for those with maintenance needs, the care plan should be reviewed frequently.

Methadone is considered useful as it:

- is evidence based (in adults)
- is relatively straightforward to titrate against withdrawal symptoms
- can be dispensed once daily (following stabilisation) and is easy to supervise
- can be used in pregnancy (see Section 8.3).

Buprenorphine binds very well to opioid receptors, so well that if any methadone or heroin is still attached to the receptors it will be displaced, which will precipitate withdrawal symptoms and stop heroin and methadone having their usual effects. Buprenorphine does not stimulate the opioid receptors strongly. It has the same effect on noradrenalin production as heroin (Preston, 2004). Buprenorphine's half-life is between 20 and 37 hours (Royal College of General Practitioners, 2004).

Buprenorphine is considered to be less dangerous in overdose than methadone and is useful for both maintenance and detoxification, anecdotal reports of 'clearer heads' are reported and with maintenance doses use of illicit opioids is reduced. Disadvantages include the length of time required for supervised consumption of sublingual tablets, the diversion potential, misuse of the drug, precipitated withdrawal and expense.

Buprenorphine should **not** normally be used in those who:

- have been taking or have been prescribed methadone in quantities greater than 20–30 mg per day
- require analgesia, possibly opioid based
- have abnormal liver function tests
- are pregnant.

Caution should be used in prescribing buprenorphine to those with benzodiazepine dependence due to the increased risk of fatal overdoses.

The risk of precipitated withdrawal is the main problem with induction.

Achieving a stabilisation dose, one that has no withdrawal symptoms and seeks to avoid any craving, may take 1–2 weeks. The dose for maintenance in adults is regarded as between 8 and 32 mg but the most common effective maintenance dose is between 12 and 16 mg (adults) though some need higher doses. Young people may require a lower dose than adults to achieve stabilisation, for example around 8 mg of buprenorphine. This is satisfactory provided that it is decided on an individual basis and there are no cravings or withdrawal symptoms.

Suboxone is a new formulation of buprenorphine which is now available; it includes the opioid antagonist naloxone in a combined sublingual tablet, in a ratio of 4:1 of buprenorphine:naloxone.

This new form is used at the same dose, that is, 8 mg of buprenorphine (Subutex) is the same as 8 mg of the new combination of buprenorphine and naloxone (Suboxone). The combination is expected to provide the same therapeutic effect while preventing or reducing the liability for misuse. This is based on the rationale that when taken sublingually the naloxone has a low bioavailability and does not diminish the therapeutic effect. However, when injected the naloxone has a high bioavailability and may precipitate opioid withdrawal, which is therefore likely to discourage injection of the drug. Misuse intra-nasally appears to have variable effects.

Lofexidine does **not** affect the opioid receptors and so does not have any heroin-like effects. Lofexidine reduces withdrawal symptoms by preventing too much noradrenalin production, the cause of many, but not all, physical withdrawal symptoms (Preston, 2004).

For those young people who do not want to use methadone or buprenorphine and have a mild history of dependence with relatively low levels of illicit use, lofexidine could be considered as a first choice for detoxification. This may be the option of choice for young people with presumed low or unknown tolerance to opioids.

Lofexidine may be considered for those:

- *“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).”*

(NICE, 2007d: p14)

Lofexidine could be initiated at the start of the treatment process or it could be commenced following a 5 day stabilisation period of methadone or buprenorphine, provided that a high stabilisation dose is not required, in which case lofexidine may be used at the end of a tapering opioid detoxification.

Reported side effects include dry mouth and mild drowsiness, though if the person is drowsy, one should be alert for other concomitant drug use. Lofexidine may cause bradycardia or hypotension (lowered blood pressure) in some people. Blood pressure and pulse rates should be checked prior to initiation, and then prior to the administration of each dose for at least the first 72 hours of the detoxification regime and for longer if there are problems. The safety of this drug is not established for those young women who are pregnant or breastfeeding.

6.1.1 Poly-drug management

In cases of current **dependence on any combination of alcohol, opioids and benzodiazepine**, more than one reduction regime may be required. Prescribing should proceed with additional caution due to the interaction of these drugs. In the context of opioid and alcohol physical dependence a more graduated individual approach will be necessary; the opioid regime should remain stable while the alcohol detoxification is taking place. Such management may assist in reducing the risk of impulsive self-harming behaviour. For the management of both alcohol and benzodiazepine dependence, clinicians may wish to combine the regimes using an increased level of chlordiazepoxide for the first seven days to cover both alcohol and benzodiazepine withdrawal regimes. Following this the chlordiazepoxide should be converted to an equivalent level of diazepam with a once daily dosing regime. A clear gradual reduction regime of the diazepam should be instigated; the speed of this reduction will depend on the assessed needs of the young person and should be frequently reviewed.

Naltrexone may be prescribed following detoxification for those who require assistance to sustain abstinence from opioids. However, the evidence base for the clear recommendation of naltrexone to prevent relapse to opioid dependence is currently weak (British Association for Psychopharmacology, 2004) and care should be exercised particularly with the younger child/young person.

NICE (2007b) recommended that naltrexone should:

- be considered as a treatment option in detoxified, formerly opioid dependent people who are highly motivated to remain in an abstinence programme
- only be administered under adequate supervision
- always be accompanied by full information on potential adverse effects

- be part of a programme of supportive care
- be under regular review with discontinuation if there is evidence of misuse.

Young people who are being considered for this therapy should be given full information prior to commencement, in leaflet form as well as verbally. Parents/carers should be involved wherever possible. Poor compliance or cessation of naltrexone significantly increases the risk of overdose and subsequent fatality if opioids are used following the loss of tolerance to opioids.

Young people should be cautioned against any attempt to overcome the blocking effect of naltrexone by the use of increasing amounts of heroin. All young people commencing naltrexone treatment should be issued with a medical alert card, with advice on analgesic requirements. The patient's GP should be informed of this treatment.

6.2 Deciding if pharmacology is required for opioid use

Methadone or buprenorphine should not be prescribed to a patient who has produced a negative opioid urine/oral fluid test unless they exhibit clear objective signs of opioid withdrawal or evidence of recent use by way of a confirmed and supervised dispensed prescription.

In the absence of positive urine/oral fluid analysis or objective withdrawal symptoms it is advisable to use a non-opioid medication such as lofexidine, if prescribing is required, at least until objective withdrawal symptoms emerge. Negative urine/oral fluid analysis can sometimes occur in those who are dependent because they have been unable to obtain supplies of opioids for several days, perhaps due to time held in police cells. In these cases objective withdrawal symptoms will be present and can be used to help to confirm dependence. It should be borne in mind that the absence of opioids for a number of days will reduce tolerance levels, and great care will be needed on dose induction to avoid overdose.

Induction of a young person onto an opioid to avoid and ameliorate withdrawal symptoms should be carefully conducted.

The following factors can help to decide if pharmacology is required:

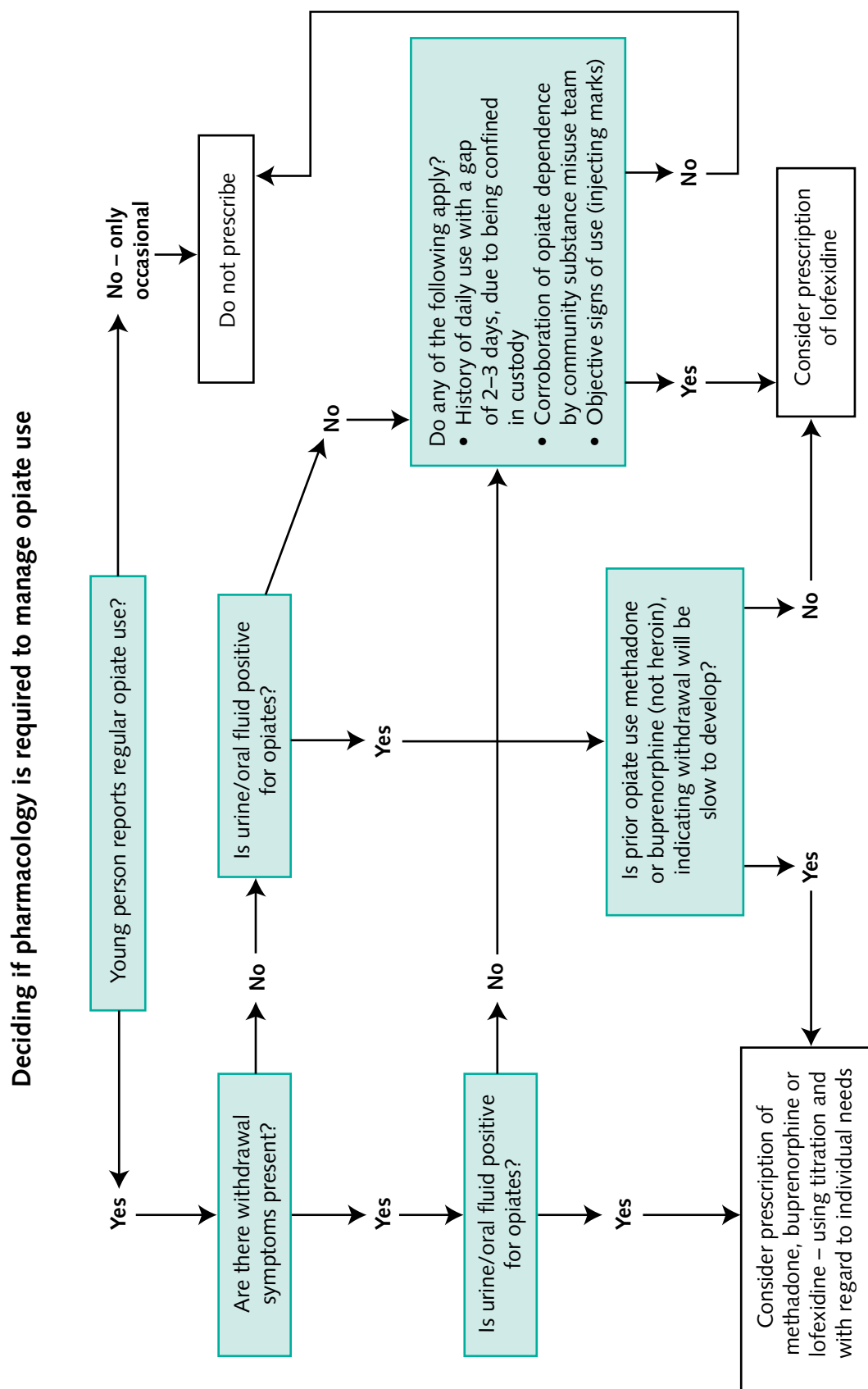
- a careful assessment of past history – to include quantity, frequency, when last used and route of use of opioids, but also benzodiazepines, alcohol and other illicit drugs
- presence of withdrawal symptoms
- an opioid positive urine/oral fluid test

- physical objective signs of use, e.g. injecting sites (although not all those who are dependent will inject)
- corroboration of history and treatment history with other practitioners.

Objective and subjective signs of opioid withdrawal are described in Table 1. Due to the different half-life periods of different opioids withdrawal symptoms present at different times. Untreated heroin dependence shows early withdrawal symptoms within 8 hours with peak symptoms at 36–72 hours. Methadone and buprenorphine withdrawal occurs later with longer lasting symptoms before subsiding.

Table 1: Signs of opioid withdrawal (Department of Health, 2007)

Objective signs of opioid withdrawal	Subjective signs of opioid withdrawal
Yawning	Restlessness
Coughing	Irritability
Sneezing	Anxiety
Runny nose	(The signs listed above may also be useful
Lachrymation (watery eyes)	objective signs)
Raised blood pressure	Sleep disorders
Increased pulse	Depression
Dilated pupils	Drug craving
Cool, clammy skin	Abdominal cramps
Diarrhoea	
Nausea	
Fine muscle tremor	



Initial doses should be titrated to relieve withdrawal symptoms, without inducing intoxication. The symptoms and signs of opioid overdose are:

- nausea and vomiting
- pin-point pupils
- drowsiness
- cold, clammy, blue-ish skin
- reduced heart rate
- reduced systolic blood pressure
- reduced body temperature
- breathlessness
- respiratory depression
- cyanosis – convulsions (due to lack of oxygen)
- death.

(Preston, 1996)

The following factors should be considered when deciding on initial dose and beginning the induction process:

- age, weight, body mass and physical development
- be aware of possible drug interactions (see Department of Health, 2007)
- tolerance and dependence
- other poly-drug use
- accumulated toxicity particularly with methadone.

To ensure safe prescribing the following procedures should be in place:

- Titration and frequent monitoring by specialist staff is undertaken during induction and detoxification.
- In the event of any sign of drowsiness – withhold the due dose of methadone and any other sedating medication that could affect respiratory function pending reassessment. In the event of drowsiness, care should be taken that the young person has not taken other non-prescribed medication and/or alcohol. Careful observation is important. Dose should be withheld until the specialist treatment service is clear about the cause of the drowsiness and this has abated. Where

sedation is sustained, the young person may need transfer to a general hospital setting.

- A defined period of at least daily recorded observations should be put in place, until steady state is reached.

6.3 Methadone induction regime

Prior to the initiating of any prescribed treatment, practitioners must familiarise themselves with section 2.5 of this document 'Prescribing responsibilities', on pages 13-15 of this document. To ensure safety, methadone should be commenced through a process of induction. Methadone should normally be prescribed as a 1 mg in 1 ml oral solution. It is important to start on a low dose, observe for withdrawals and increase accordingly, as there is a lack of evidence for methadone treatment in young people. Inappropriate dosing can result in overdose related to cumulative toxicity in the first few days. The initial dose will be in the range of 5–10 mg. This is lower than that advised in adults, due to the shorter history and often uncertain tolerance of young people. The observation period for expected response for a single dose is up to at least 4 hours because of the long and variable half-life of methadone. Any requirement for supplemental doses should be assessed by an experienced medical practitioner. In general, caution with frequent and rapid induction is advised in high-risk young people, or those with uncertain tolerance. Greater caution should be taken in the custodial setting, if the young person cannot be well observed. Steady state plasma levels are generally expected within about 5 days, and therefore close observation is necessary until stabilisation is achieved.

Great care must be taken in estimating dose levels that approximate with illicit heroin, as the purity and consequently the strength of street heroin fluctuates markedly. An individual can only approximate how much they have used and this may be inaccurate.

Induction regime:

- Full explanation of methadone, its toxicity and induction regime should be given to the patient and to their parents/carers.
- Methadone is commenced at least 8 hours after the last heroin dose provided that there is objective evidence of withdrawal symptoms.
- Urine/oral fluid test should be positive for opioids.
- A starting dose of 5–10 mg of methadone is administered – this should be supervised.
- Withdrawal severity scales can be useful in assisting with withdrawal monitoring and in conjunction with intoxication monitoring, though they should not take the place of clinical observation.

- Further methadone is titrated against withdrawal symptoms and intoxication signs.

Table 2: Methadone induction regime

Suggested titration doses	
Day 1	10–25 mg methadone
Day 2	Methadone 15 mg BD
Day 3	As day 2
Day 4	Up to 40 mg depending on response to day 3 dose
Day 5	30–40 mg mane – can be given at this time on a daily basis

Assuming that titration starts in the morning and withdrawal symptoms have been observed, 5–10 mg of methadone may be given in response to objective withdrawal signs. Further doses may be needed during the day but rarely is more than 30 mg required unless in an in-patient setting where 24-hour observation is achievable. Additional doses should not be given within a 4–6-hour window because of the time required to achieve blood peak levels and due to the long half-life of the drug.

The protocol above notes a methadone titration up to 40 mg. There may need to be further administration of methadone on days 2 and 3, depending on the severity of dependence, observable withdrawal symptoms and the dose received on the previous day(s). However, increases of dose should not generally be in excess of a further 10 mg, increases need careful monitoring and the total dose should not be higher than 30 mg above the first day dose in the first week (Department of Health, 2007). If higher doses are required, then specialist advice should be sought. The dose of methadone may need to be increased depending on craving and use of illicit drugs over the next weeks. GPs should not prescribe in isolation and are encouraged to work with specialist advice.

It may be that the young person does not need 30 mg daily. Increases in methadone should only be given in response to clear withdrawal symptoms and not requests for sedation. One should be careful that anxiety symptoms related to the process and the circumstances are not judged to be withdrawal symptoms and methadone adjusted upwards.

Titration for young people should only be undertaken in an environment where there is close observation and supervision. Operating a twice daily administration of medication allows smaller doses to be given which increases the flexibility of titration. Any observation of drowsiness should be responded to by omission of the next dose and formal review. If the young person is already prescribed concomitant respiratory depressant drugs then great care is needed with slow titration, of perhaps up to 5 mg increments. There should be no medication given while drowsiness is observed, medication should be reviewed and urgent medical care given as required.

6.4 Buprenorphine induction regime

Buprenorphine is administered as sublingual tablets. Supervision takes at least 10 minutes and demands close observation. Supervision, however, is important, as diversion, intravenous use and snorting of these tablets have been recorded. Should the tablet be injected or snorted the patient's treatment should be reviewed urgently by the clinical team. The review could include ensuring that there is dependence to opioids, a switch to methadone to optimise treatment, and increasing the dose if dosage has been insufficient.

Liver function tests (LFTs) should be undertaken at the beginning of treatment. If normal these tests should be repeated periodically throughout treatment, as buprenorphine can cause an increase in aspartate aminotransferase (AST) and alanine aminotransferase (ALT). If LFTs are abnormal the patient should be investigated for the underlying cause. Significant decompensating liver function is a contraindication to its use.

The young person and their parents/carers (if appropriate) should be informed about the different properties of buprenorphine as compared with methadone, especially precipitated withdrawal risk. This may exacerbate rather than reduce withdrawal symptoms in the event of recent or current heroin or methadone use. Without full discussion of these and other properties of the medication informed consent cannot be given.

To avoid precipitated withdrawal patients should have been heroin-free for a minimum of 8 hours and methadone-free for at least 24 hours prior to the initial dose of buprenorphine. Ideally, they should also be exhibiting clear signs of opioid withdrawal (Royal College of General Practitioners, 2004). Precipitated opioid withdrawal, if it occurs, starts within 1–3 hours of the first buprenorphine dose, peaks in about 6 hours and then subsides. Adjunctive therapy may be required such as lofexidine if withdrawals are severe.

Induction regime:

- Observe for clear objective withdrawal signs.
- Initiate at least 8 hours after the last heroin dose or 24–36 hours at least after the last dose of methadone.
- Full explanation of the effects of the drug to be given.
- Commence on 2–4 mg (2 mg to the younger person with low BMI).
- Titrate the dose on subsequent days, up to increments of 2–4 mg daily.
- Consumption supervised to ensure that the tablet has fully dispersed.
- Adjunctive symptomatic support or additional buprenorphine may be required in the early stage of treatment.

- Ongoing assessment and monitoring and regular clinical review and reassurance are likely to improve compliance and retention.

6.5 Opioid detoxification

Detoxification can be undertaken using methadone or buprenorphine (NICE, 2007d). For young people who have a short history of opioid dependence and mild dependent symptoms, are under 16 years, and do not wish (and their parents/carers agree) to have either methadone or buprenorphine, then detoxification using lofexidine may be the treatment of choice. It is recommended if there is unknown tolerance or suspected low tolerance to opioids to commence detoxification with lofexidine.

For all detoxifications adjunctive treatment may be required, though care should be taken to ensure that the detoxification regime is at a suitably high level to optimise care for the young person. This will include non-drug measures, such as psychosocial support and adequate hydration. To alleviate withdrawal symptoms drug preparations, such as anti-emetics or anti-diarrhoeal drugs, may be required, though care should be taken with interactions and multiple prescriptions.

Practitioners should be aware that whatever the duration of detoxification, withdrawal symptoms may frequently persist beyond the cessation of all medication. It is important to provide support for individuals in the first few days after stopping methadone or buprenorphine; at this time some individuals may require symptomatic relief which may include the use of low-dose lofexidine.

Detoxification regimes should not be commenced without first explaining the overall aims of treatment and the likely process of detoxification. The reduction programme can be slowed or stopped at any time; the process should be reviewed regularly, at least twice weekly. If there are concerns about increasing withdrawal symptoms the reduction can be slowed or dose increased following careful review.

The length of the process needs to reflect the level of physical dependence, the length of time the young person was already on the prescription (if this was so), the age and needs of the young person and the wishes of the young person and their parents/carers.

Some young people may not be able to successfully detoxify from opioids and remain opioid-free. In these cases maintenance may be required and can act to help to reduce drug-related harm.

6.6 Lofexidine detoxification

Methadone or buprenorphine should be offered as first line treatment in opioids detoxification (NICE, 2007d). Lofexidine may be considered in those who do not want either of these drugs, want a short detoxification and have mild or unclear dependence. The symptoms of withdrawal present earlier and more intensely in the first few days than with tapering methadone regimes. It may cause hypotension.

Detoxification should commence at 0.2–0.4 mg twice a day, increased daily as necessary to control withdrawal, in increments of 0.2–0.8 mg daily to a maximum of 2.4 mg a day.

This regime may need to be adjusted in response to withdrawal symptoms, with higher doses needed by some patients in the early stages of opioid withdrawal. Young people are more inclined to need lower doses but again there is little evidence on those under 16. The dose should be titrated according to withdrawal symptoms with the young people frequently assessed and observed.

Lofexidine detoxification regime:

- Observe for withdrawal signs, unless the person has previously been stabilised on methadone or buprenorphine.
- Take baseline pulse and blood pressure readings.
- Give a full explanation of the effects of the medication to be given.
- Initial dosage should be 0.2–0.4 mg twice daily. This dose may be increased by increments of 0.2–0.8 mg a day up to a maximum of 2.4 mg (12 tablets).
- Monitor blood pressure and pulse frequently for at least 72 hours, or until a stable dose is achieved, whichever is longer.
- Stop medication if there is severe bradycardia or hypotension.
- Stabilise at a constant dose for 7–10 days.
- Decrease dose gradually over a period of at least 2–4 days.
- Slow reduction if hypertension occurs.
- Do not prescribe to pregnant or breastfeeding women.

Table 3: Example of approximately 3 week lofexidine detoxification

Three phases of detoxification	Example dosage	Total daily dose
Increase dosage according to patient's response to a maximum of 2.4 mg	Day 1 0.4 mg BD	0.8 mg
	Day 2 0.6 mg BD	1.2 mg
	Day 3 0.8 mg BD	1.6 mg
	Day 4 0.8 mg BD	1.6 mg
	Day 5 1 mg BD	2 mg
Stabilise for 7–10 days	Days 6–12 1 mg BD	2 mg
Reduce speed of withdrawal if blood pressure elevates	Day 13 0.8 mg BD	1.6 mg
	Day 14 0.6 mg BD	1.2 mg
	Day 15 0.4 mg BD	0.8 mg
	Day 16 0.2 mg BD	0.4 mg
	Day 17 0 mg BD	0 mg

6.7 Methadone detoxification

Methadone detoxification should only be commenced after at least a 5 day period of stabilisation to ensure that the optimum dose has been reached before considering reduction to minimise discomfort. Due to methadone's long half-life reduction should be relatively slow as withdrawal symptoms may take some time to become obvious.

- Explain fully the regime and goals of the detoxification.
- Reduce methadone by 2.5–5 mg every few days (e.g. every 4 days).
- Stop withdrawal and restabilise if the young person recommences illicit opioid use, or if there are other signs that they cannot manage the detoxification.

Table 4: Example of 3 week methadone detoxification

Example of approximately 3 week detoxification regime from 30 mg per day	
Day 1	30 mg
Days 2–4	25 mg
Days 5–7	20 mg
Days 8–10	15 mg
Days 11–14	10 mg
Days 15–17	5 mg
Days 18–20	2.5 mg
Day 21	0 mg

6.8 Buprenorphine detoxification

Buprenorphine detoxification should only be commenced after at least a 5 day period of stabilisation to ensure that the optimum dose has been reached before considering a reduction to minimise discomfort.

For patients who have been stabilised on buprenorphine, a buprenorphine detoxification involves a gradual reduction in doses over the course of at least 2 weeks, but it can be up to 12 weeks.

For patients who have been stabilised on methadone, a buprenorphine detoxification should not be commenced until the patient has reduced to at least 20–30 mg of methadone a day, with a minimum gap of 24 hours between the last dose of methadone and the initial dose of buprenorphine, to avoid precipitated withdrawal symptoms. Ideally, the young person should be exhibiting some signs of withdrawal prior to initiation of the buprenorphine.

Table 5: Gradual reduction of buprenorphine

Daily dose	Suggested reduction
16 mg or over	4 mg every 1–2 weeks
8–16 mg	2–4 mg every week
2–8 mg	2 mg every week
(Guidance for the use of buprenorphine, Royal College of General Practitioners, 2004)	

Tables 6 and 7 show alternative suggestions for detoxification from a stabilised dose of 8 mg of buprenorphine, though these should be tailored to the individual's needs.

Table 6: Example of 2 week detoxification from 8 mg of buprenorphine

8 mg buprenorphine approximately 2 week detoxification	
Day 1	8 mg
Days 2–4	6 mg
Days 5–7	4 mg
Days 8–10	2 mg
Days 11–13	0.8 mg
Days 14–15	0.4 mg

Table 7: Example of 4 week detoxification from 8 mg of buprenorphine

8 mg buprenorphine approximately 4 week detoxification	
Days 1–4	8 mg
Days 5–8	6 mg
Days 9–12	4.8 mg
Days 13–16	2.8 mg
Days 17–20	2 mg
Further reduction of 0.4 mg every 3–4 days	

There is no evidence on which withdrawal regimes are most effective in young people. Clinical reports and opinion would suggest that there is an individualised process of detoxification that considers the individual needs of the child/young person. NICE (2007d) suggests that detoxification should normally be up to 4 weeks in residential settings and up to 12 weeks in community settings. Careful thought should be given if considering a shorter detoxification.

6.9 Maintenance with buprenorphine or methadone

It will not be appropriate to detoxify all opioid-dependent young people. Some will have severe dependence, a well established history of misuse and/or previous treatment and multiple difficulties including mental health problems, and will be at high risk of future overdose. These and other factors such as the age of the young person may indicate that they may be more suitable for maintenance. The decision as to whether to maintain or detoxify should be made by a multi-disciplinary team which includes the young person and their parents/carers as appropriate, and in consultation with a specialist.

6.10 Continuation of opioid prescription from a custodial setting

It is important that there is continuity of care from custody to the community particularly if the sentence has been short or the young person has been placed on remand and a treatment programme may not have been completed.

Best practice would involve joint working between the community and custodial services throughout the custodial stay and especially during assessment and resettlement planning. When a custodial establishment requests information or support it is in the best interests of the young person for the community service to act quickly and to assist as much as possible with the development of the young person's care plan. Decisions in custody have to be made rapidly and speed of response will be important in helping the young person to receive continuity of care. Following release from custody, prioritising young people's treatment and arranging an appointment for assessment as soon as possible, preferably on the day of release, will help to avoid gaps in treatment and reduce the possibility of relapse and risky behaviour.

Sometimes a young person remanded in custody will be unexpectedly released from court and the custodial establishment may not have had the opportunity to put adequate plans in place for continuity of care. Where a young person presents to the community service following release from custody where no joint working has taken place the following procedures will help to ensure safe and consistent care.

If a young person declares that they are already on a prescription (methadone or buprenorphine) the following should be confirmed prior to continuation of this prescription:

- that the young person has been receiving methadone/buprenorphine in custody
- that the young person had the full supervised dose of methadone/buprenorphine at least within the past 48 hours
- the dose, frequency of administration and treatment plan from the custodial service.

If the above criteria are confirmed with healthcare staff from the custodial setting then the prescription should be continued, although caution is always advised until tolerance is assured. Young people should be warned against the use of alcohol and other drugs which may contribute to an overdose. Previous history of substance use and treatment prior to custody should also be considered.

6.11 Naltrexone induction regime

Naltrexone is an opioid antagonist, and can be helpful following detoxification in enabling a person to maintain abstinence. It is licensed for oral use in those over 18 years. Due to the potential for hepatotoxicity, a liver function test should be organised prior to commencement of treatment and repeated during treatment; if there are even minor abnormalities this should be discussed with specialist teams and caution should be observed when considering the medication for patients with impaired hepatic or renal functioning (NICE, 2007b).

Care should be taken on initiation, as withdrawal would be precipitated in those dependent on opioids. It is recommended that naltrexone treatment should not be initiated until a patient is 5–7 days clear of heroin or (because of its greater half-life) 10 days clear of methadone. A urine/oral analysis should confirm this opioid-free status during these abstinent days and on the day of initiation.

If it is uncertain whether the person has used opiates, then it may be necessary to conduct a challenge. Following a negative urine or oral screen, a test dose (e.g. 12.5 mg of naltrexone) is given orally and the person is observed over a few hours for withdrawal symptoms. If no withdrawal symptoms are observed then up to 50 mg can be prescribed on a once daily basis. This drug may be considered for those adolescents who have detoxified from opioids as one part of a programme of supervision, which could involve parents/carers providing some of the support.

It is important to ensure that the young person is aware of their loss of tolerance to opioids and the risk of overdose should opioids be taken, especially if there is poor compliance with the naltrexone regime.

7. Prescribing protocols for alcohol and non-opioid drugs

Prescribing protocols for alcohol and non-opioid drugs – key points

Multiple dependences

- Dependence on a combination of alcohol, opioids and benzodiazepines will require more than one reduction regime.

Alcohol

- The recommended medication for the treatment of alcohol detoxification is chlordiazepoxide. The usual regime will be 20 mg of chlordiazepoxide QDS initially and then reducing over 7 days.
- The dose of chlordiazepoxide should be titrated until withdrawal symptoms cease.
- If withdrawal symptoms do not stabilise, or if there are seizures or delirium symptoms, the young person should be transferred to a general hospital.
- Acamprosate or disulfiram may have a role, but only where supported by specialist community substance misuse teams and the young person's family/carers.

Benzodiazepines

- Benzodiazepine maintenance prescribing is not recommended in children and young people.
- Detoxification using diazepam should be gradual according to the length and severity of dependence.
- Diazepam at 30 mg a day is usually a sufficient maximum detoxification dose, even where previous use was higher.
- Benzodiazepine dependence and withdrawal can be associated with suicidal and self-harming behaviours.

Cannabis

- Withdrawal from cannabis may precipitate decreased appetite, weight loss, sleep problems, craving, irritability and vivid dreams. These symptoms may require management.
- Cannabis can contribute to and compound mental health problems. Where there is any evidence of psychoses a full mental health assessment should be completed; anti-psychotic medications may be required.

Inhalants

- Deaths are mostly related to 'sudden sniffing' or accidental injury while intoxicated.
- For very frequent inhalant users withdrawal may precipitate agitation which should be monitored as it may require treatment.

Stimulants

- There is little evidence for the use of pharmacology in the treatment of cocaine or amphetamine dependence for adults, and none for children or young people.
- Stimulant withdrawal may precipitate significant psychological symptoms such as self-harm and suicide, violence, agitation and depression which may require treatment and careful monitoring.
- Psychological symptoms should be managed in tandem with the mental health team and include a full mental health assessment.

7.1 Multiple dependences

Dependence on any combination of alcohol, opioids and benzodiazepine will require more than one reduction regime. Prescribing should proceed with additional caution due to the interaction of these drugs.

In the context of opioid and alcohol physical dependence, the opioid regime should remain stable while the alcohol detoxification is taking place. For dual alcohol and benzodiazepine dependence, clinicians may wish to combine the regimes using an increased level of chlordiazepoxide for the first seven days to cover both alcohol and benzodiazepine withdrawal regimes, followed by conversion to once daily use of diazepam and a graduated withdrawal regime.

7.2 Alcohol detoxification

The choice of drug for alcohol detoxification is benzodiazepines, usually chlordiazepoxide or diazepam. The benefits of this are:

- a reduction in the severity of withdrawal
- a reduction in the incidence of complications
- a reduction in the adverse effects of medication
- improved completion rates.

The British Association for Psychopharmacology guidelines (2004) do not consider the choice of benzodiazepine to be crucial though longer-acting benzodiazepines are more effective in preventing fits and delirium. Chlordiazepoxide is generally recommended (Royal College of Physicians, 2001), though diazepam may be more beneficial if there is a history of seizures. Symptoms of withdrawal following diagnoses of physical dependence should be treated on an urgent basis.

The symptoms of alcohol withdrawal include:

- sweating
- tremors
- nausea
- vomiting
- hypertension (raised blood pressure)
- tachycardia
- agitated states
- seizures or delirium tremens as complicating factors.

The severity of dependent symptoms can vary and so affect the amount of benzodiazepines required. There are alternative models of delivery of benzodiazepines, such as titration of dose against withdrawal symptoms, 'front loading' until light sedation is achieved, or fixed reducing regime. Some of these regimes require more skilled monitoring and supervision.

A usual regime is of approximately 20 mg of chlordiazepoxide QDS initially, then reducing over about 7 days. This dose should be given on a four times daily basis initially so that withdrawal symptoms can be observed and the chlordiazepoxide titrated to the dose required. A reduction over 5 days for mild dependence could be:

- Day 1 – 20 mg QDS
- Day 2 – 15 mg QDS
- Day 3 – 10 mg QDS
- Day 4 – 5 mg QDS
- Day 5 – 5 mg BD

or gradations similar to this reduction (Parker et al, 2008).

The regime should be closely monitored, with a reduction of dose if there is evidence of over-sedation. There is little evidence on dose requirements for children and young people. While the dose of 20 mg QDS may be appropriate for a young person with mild dependence, it is important to be aware that, though unusual, severe dependence may occur with the need for increased doses that are titrated against increasing withdrawal symptoms. If vomiting is persistent hospitalisation should be considered as parenteral sedation may be required. For those who have a diagnosis of epilepsy and are prescribed anti-convulsant medication this should be stabilised, with careful monitoring. Advice from neurological services may be required.

It is important that individuals are monitored by specialist staff at least daily for the first seven days of their management because of possible seizures, or symptoms of co-existing illness that interferes with diagnosis, such as anxiety disorder or head injury. The setting for detoxification should be decided on the severity of dependence, other physical concomitant difficulties, availability of support and observation required. Parents/carers should be provided with full information on possible side effects, overdose and how to gain help should they have concerns about their child's well-being.

Where concurrent opioid detoxification is indicated, no reduction in methadone or buprenorphine should be attempted until the alcohol detoxification is complete.

7.2.1 Complications

If a young person continues to demonstrate signs of alcohol withdrawal during detoxification additional doses of chlordiazepoxide or diazepam should be given. Should a patient's condition not stabilise, they should be urgently transferred to a hospital, as this is a potentially fatal condition.

Benzodiazepines, particularly diazepam, reduce de novo seizures and are recommended for treatment of withdrawal previously complicated by withdrawal seizures. Lorazepam is considered efficacious in preventing a second seizure in the same withdrawal episode. The evidence does not support the use of phenytoin in this circumstance (British Association for Psychopharmacology, 2004). Carbamazepine is also effective in both management of withdrawal symptoms and in management of seizures (British Association

for Psychopharmacology, 2004). However, the use of benzodiazepines is advised as the treatment of choice in the management of alcohol withdrawal. Chlormethiazole is not recommended for use in alcohol withdrawal in younger people.

Longer acting benzodiazepines help to prevent delirium and are recommended for this complication of alcohol withdrawal. However, should the young person have delirium symptoms, then they should be urgently transferred to a hospital.

Should the young person have delirium symptoms, symptoms of Wernicke's encephalopathy or even some symptoms suggestive of this, they should be urgently transferred to hospital. (Wernicke's encephalopathy presents with the full classical triad in only 10% of adults dependent on alcohol.)

7.3 Alcohol relapse prevention

Acamprosate can be used to improve abstinence rates and reduce drinking days and craving, though there is no clear evidence on which type of person might benefit. In adults acamprosate is recommended for those attempting to maintain abstinence when combined with psychosocial treatments. For those under 18 with alcohol dependence acamprosate is not recommended unless there is clear involvement with community specialist teams. However, there are some early positive suggestions for the use of acamprosate in adolescents.

With regard to disulfiram, despite its use for many years, there have been few controlled trials. Supervised consumption of this drug may improve efficacy. When prescribed without this supervision, there is little evidence for effectiveness above basic support. Care should be taken on initiation of this prescription as a young person may binge drink on discharge, without consideration of the consequences of the use of this drug. For those young people with dependence disulfiram is not recommended for use without the full involvement of community specialist teams, and parents/carers may be useful in terms of supervision of these drugs and support.

Naltrexone is not licensed for use in those with alcohol difficulties.

7.4 Benzodiazepine detoxification

Benzodiazepine withdrawal symptoms may take more than 72 hours to become established; a negative urine/oral fluid result would be unusual in a young person with physical dependence but should not automatically preclude the need for management of this dependence pharmacologically. There may be reasons why the young person could not gain access to illicit supplies in the previous few days, which should be considered (e.g. time spent in police custody). However, only a minority of young people who misuse these drugs develop dependence (Ross and Darke, 2000).

Where physical dependence is established, either from illicit use or prescription for anxiety states, gradual discontinuation is recommended. There is little evidence that long-term prescribing of benzodiazepines reduces the harm associated with benzodiazepine dependence and increasing evidence that long-term prescribing may cause harm. Maintenance is not recommended in children and young people.

Where clinical assessment indicates a previous history of regular benzodiazepine use sufficient in dose and duration to suggest dependence, a benzodiazepine detoxification regime should be prescribed. Diazepam is licensed for the management of benzodiazepine withdrawal.

Detoxification should be initiated where there is a history of benzodiazepine physical dependence, and observed objective withdrawal symptoms. It is important to note that, depending on the timing of ingestion of last dose and assessment, withdrawal may not present, so it is important to continue monitoring for withdrawal signs. However, even if the young person reports the historical use of very large amounts of benzodiazepines, evidence suggests that prescribing need only be in moderate doses, often far lower than the previously stated dose. The lowest dose to prevent withdrawal should be used (Department of Health, 1999).

Diazepam is the drug of choice as it has a long half-life, can be given in daily doses and is helpful in preventing seizures, and tablets are available in various doses. For those already prescribed both diazepam and a hypnotic such as temazepam, it is advisable to convert all benzodiazepines to diazepam; this can be approximated from equivalents charts (Department of Health, 2007). For example, 5 mg of diazepam is roughly equivalent to 15 mg of chlordiazepoxide and 10 mg of temazepam.

The dose for initiation to ease withdrawal symptoms is unlikely to exceed 30 mg. If there is a need for larger doses then the young person should be frequently reviewed by a doctor or non-medical prescriber and multi-disciplinary team.

Diazepam should initially be prescribed in divided doses titrated against withdrawal symptoms for the first seven days. Reduction or omission of dose should occur if there is any evidence of sedation and the patient should be reviewed prior to reinitiation of the prescribing regime.

There is no clear guidance on the rate of withdrawal. The withdrawal regime will depend on a number of factors: severity of dependence, age of the individual, body weight, history of tolerance, history of prescribed use of benzodiazepines, reason for any previous prescriptions, and use of or dependence on illicit drugs or alcohol.

If the young person is receiving a prescription for opiate dependence at the same time, the methadone or buprenorphine dose should be kept stable while the benzodiazepines are being reduced. For those with dependence on both alcohol and benzodiazepines, the withdrawals should be managed with chlordiazepoxide initially. Chlordiazepoxide should be initiated, increasing the dose to manage both dependences, and then reducing over a period of days (administered QDS); this will manage the alcohol withdrawal. The chlordiazepoxide should then be converted to diazepam for a once daily dose and gradually reduced to manage the benzodiazepine dependence.

Benzodiazepine withdrawal should be gradual. The Department of Health (2007) suggests withdrawal in proportions of about one eighth of a daily dose once a fortnight, or for those with dependence on therapeutic doses, clinicians suggest 2 mg per week which should be reviewed if withdrawal symptoms occur. Suggestions for rate of withdrawal include 2–4 mg per week, or 5–10 mg per month. The rate of withdrawal is often determined by the individual's capacity to tolerate symptoms. However, the rate should be partly determined by the level of severity of dependence on the drug and length of use.

Longer-term prescribing and gradual withdrawal of benzodiazepines should adhere to the general principles of management: clear indications of dependence, clear intermediate goals, regular review and methods to prevent diversion (Department of Health, 2007).

Benzodiazepine dependence and withdrawal can be associated with suicidal and self-harming behaviours, and should be managed accordingly with due caution, and may require a slow reduction and psychological support.

Young people with a confirmed history of epilepsy will require cautious rates of reduction for benzodiazepine dependence, informed by ongoing monitoring. A review of any currently prescribed anti-convulsant medication should be organised, with advice from specialist if required.

7.5 Cannabis

Cannabis dependence is reported in regular users, with characteristic withdrawal symptoms apparent on sudden cessation. This syndrome can last between 10 days and several weeks and may be associated with decreased appetite, weight loss, sleep problems and craving as well as irritability, aggression and vivid dreams. These withdrawal symptoms may need supportive management.

Cannabis may both precipitate psychoses in young people and impact negatively on those with mental health problems. Among young people with psychoses such as schizophrenia, chronic cannabis use negatively impacts on course and treatment of the illness, and is associated with poor compliance with medication and earlier and more frequent relapses.

There is increasing interest in drug-induced psychoses caused by cannabis and its relationship with long-term psychotic illnesses. A number of studies have demonstrated that young cannabis users are at least 2–3 times more likely to demonstrate psychotic symptomatology; it appears that this primarily relates to the precipitation of psychoses in vulnerable groups. Management of drug-induced psychoses requires urgent treatment with anti-psychotic medications and close working with the CAMHS team. It is crucial that young cannabis misusers with dependence are monitored, with their mental state carefully assessed. Psychosocial treatments should be given to those with cannabis misuse in line with the NICE (2007e) and NTA (2008b) guidelines.

7.6 Inhalants

Young people may abuse these drugs as they are cheap and easily available and provide rapid intoxication. There are a wide range of household and commercial products that fall into this category. This intoxication is similar to that of alcohol, with symptoms of euphoria, disinhibition and excitement leading to disorientation and short-acting central nervous system depression. Deaths are related more often to ‘sudden sniffing’ or accidental injury while intoxicated. Evidence of inhalant physical dependence is limited with case reports suggesting a withdrawal syndrome similar to alcohol withdrawal. Physical symptoms are usually short-lived, though agitation and craving may continue for weeks. It is recommended that inhalant users are routinely assessed, and if intoxicated the young person may need unrestricted observation for some time.

There is no specific pharmacological treatment recommended but support and symptomatic treatment may be required in the short term for agitation. Clearly, a comprehensive assessment of all needs should be conducted accompanied by the development of a care plan.

7.7 Stimulants

The mainstay of treatment for stimulant users is psychosocial approaches with little evidence for pharmacological approaches. Research on pharmacology has mainly concentrated on withdrawal and the maintenance of abstinence. The evidence for pharmacological approaches is scanty at best. Likewise, while psychosocial interventions are considered the mainstay of treatment, there is also a lack of good quality research and reviews in young people.

For those with cocaine dependence, there has been much interest in anti-depressants, disulfiram, carbamazepine, dopamine agonists, dexamphetamine and other drugs, such as phenytoin and naltrexone. To date there is little evidence to support the use of these pharmacological agents, with no evidence for their use in young people.

Similarly for those with amphetamine dependence there is no clear evidence to support substitute medication at present. At this stage, there is no evidence to support the use of any pharmacological drugs to effect withdrawal or substitution for cocaine or amphetamine dependence in children and young people. It is important to consider that, like other young people who use illicit drugs and alcohol, those using stimulants may use many other substances, e.g. cannabis, alcohol and ketamine.

Psychosocial interventions, an abstinence-based approach linking counselling and social support, have the greatest impact on cocaine misuse with approaches incorporating contingency management found to be successful (Department of Health, 2007 and NICE, 2007e). However, there is a dearth of well evidenced therapies in the younger age group. Nevertheless, a young person may have problems on withdrawal of stimulants, particularly if admitted to a custodial setting and this needs careful monitoring and management (British Association for Psychopharmacology, 2004).

A young person with stimulant withdrawal may present with problems related to mood changes, suicidal and self-harming behaviours, possible violence/psychoses and significant agitation. A short but profound depression is a recognised withdrawal symptom, which may necessitate treatment. There is no evidence that anti-depressants can ameliorate the withdrawal effects by stimulants (Department of Health, 2007). Sudden death occasioned by an intracranial bleed or cardiac arrest appears to be an increasing risk among young people abusing crack.

It is recommended that young people reporting recent heavy stimulant use and whose urine/oral fluid tests are positive for stimulants are monitored for signs of hypertension and neurological problems. Any abnormalities would warrant full medical assessment, and in the event of continued concern, transfer to a general hospital.

Where there is evidence of agitation or volatility in those withdrawing from stimulants stress reduction procedures may benefit the young person. There is no evidence to prescribe benzodiazepines though a short regime of diazepam may be required for extreme agitation (Department of Health, 2007). A psychosis related to stimulant abuse needs careful assessment and management, probable anti-psychotic medication with close review and involvement of the CAMHS teams.

At the same time there needs to be observation for a co-existing mental illness, change in mood or behaviour related to withdrawals, or use of drugs precipitating and exacerbating other mental illnesses. A full mental health assessment should be considered for any young person demonstrating symptoms/signs of any of these problems. Concerns for the young person's safety as a result of their mental distress should result in appropriate action to reduce risk.

All those with stimulant-related problems should have this full assessment with a comprehensive plan in place, particularly with regard to psychosocial treatments and family therapies, details of which can be found in NTA (2008b).

8. Management of co-morbid disorders

Management of co-morbid disorders – key points

- A high percentage of young people with substance misuse problems will have a co-morbid disorder, for example substance misuse and depression.
- Substance misuse may contribute to or exacerbate mental illness; symptoms of mental illness are common.
- Any mental health diagnosis and consideration of treatment should be in conjunction with CAMHS and substance misuse services.
- Clear transfer arrangements should be in place for those leaving a custodial setting with co-morbid substance misuse and mental health problems (dual diagnosis).
- Psychological interventions are the mainstay of mental health management in children and young people, but pharmacology may be required.
- Physical health problems should be considered as these may have been exacerbated by substance misuse, or their treatments contraindicated with regard to substance misuse pharmacology.
- It is vital that pregnancy is identified and the implications taken account of with regard to substance misuse pharmacology and the care and safety of the mother and child.
- Specialist substance misuse treatment providers are encouraged to work closely with youth justice agencies, including YOTs and custodial establishments, to develop joint working arrangements and care plans for young people.

The successful treatment of substance misuse disorders is likely to involve the use of multiple treatment interventions, related to the high prevalence of co-morbid disorders in this population, combined with multiple social difficulties.

The term ‘dual diagnosis’ is used to describe the co-existence of psychiatric disorders and substance misuse. Many young people with a substance misuse disorder have pre-existing impulsive, oppositional and conduct disorder behaviours with others reporting anxiety and depressive disorders. Approximately 30–50% of substance misusers have psychiatric disorders, and approximately 30–50% of young people with psychiatric disorders, especially

disruptive behaviour disorders, have substance misuse problems. Psychiatric disorders, that begin in childhood have a strong likelihood of continuing into later life, and may be further complicated by substance misuse. Affective disorders, personality difficulties and attention deficit hyperactivity disorder can all be associated with substance use. Substance misuse is also a powerful predictor of suicide.

8.1 Mental health

Symptoms of mood disorder, anxiety and psychosis are common in those who misuse alcohol and drugs. Chronic use, intoxication and withdrawal can produce symptoms similar to anxiety and depression, precipitate panic disorders, agitation and extreme irritability, and may mimic a schizophrenia-like illness. In addition those with pre-existing mental health problems are at higher risk of substance misuse, with withdrawal symptoms possibly exacerbating the pre-existing mental illness.

Young women in custody are likely to be highly vulnerable to mental health problems especially in relation to post-traumatic stress disorder, depression, suicide and self-harm (Douglas and Plugge, 2006 and Galahad, 2004). Other studies suggest that, among young people being treated for substance misuse, young women will have more severe mental health problems than young men (Ruiz et al, 2005).

An assessment should be conducted which should include:

- a complete history of substance use with toxicology and corroborative evidence where possible from community teams and parents/carers
- a mental health assessment which includes persistence of mental health symptoms during substance use, abstinence and response to previous treatments.

Those undertaking a comprehensive co-morbidity assessment, treatment, anti-psychotic medication, substance misuse medication and other pharmacological treatments should all be discussed and a treatment plan arrived at as part of a multi-disciplinary/agency approach involving CAMHS and substance misuse specialists.

A pragmatic and integrated approach should be taken with treatment of both disorders concurrently, using both psychosocial and pharmacological approaches if necessary in liaison with CAMHS to produce a clear care plan. There should be clarity about the responsibilities of CAMHS and the substance misuse team and care should be taken to avoid any separation between substance misuse and mental health teams that might lead to confusion of role with inadequate assessment, treatment and follow-up plans.

Commissioners in community settings should also be aware of the high prevalence of co-morbid disorders, particularly in young offenders. Appropriate arrangements for shared

care between specialist community drug services and CAMHS should be recognised and put in place to ensure fast and accessible treatment on discharge from custody.

Psychosocial interventions are the mainstay of treatment. Management of mood and anxiety disorders with pharmacological interventions is generally not recommended in young people (NICE, 2005). Mood disorders should be observed carefully, and mood may improve with management of the dependence and withdrawal symptoms. Advice and assessment from CAMHS should be sought.

8.2 Physical health

Young people may have physical difficulties, e.g. diabetes, asthma, obesity and infections that will need assessment and treatment. Some young people may have sexually transmitted infections that need to be identified and treated. Young people will benefit from a baseline physical assessment (all with informed consent), and advice and support on all physical health needs, including sexually transmitted infections.

It is important that all those with a history of intravenous drug use are assessed for blood-borne viruses. This is particularly important given the high prevalence of some blood-borne viruses, and testing should be done with full consent. Young people who are injecting drug users or living in close contact with injecting drug users should be encouraged to take up offers of hepatitis B vaccination.

If a young person is receiving treatment for HIV or hepatitis C, then it is important that the substance misuse specialists liaise closely with the infectious disease team, particularly as some medications may interact with methadone.

8.3 Pregnancy

It is important that pregnancy is considered in all young women. Some may be unaware that they are pregnant because amenorrhea is common and withdrawal symptoms may mimic signs of early pregnancy. All should be encouraged to have a pregnancy test. If a woman is considering termination, or miscarries, counselling needs to be given and appropriate drug treatment maintained until she recovers (Department of Health, 2007).

The management of those young women who are pregnant should be carefully planned, and managed within a multi-disciplinary team. Antenatal care is important with advice and management of all risks such as smoking, nutritional status, and management of alcohol and other drugs. Guidelines are available for the management of substance misuse in pregnancy (Department of Health, 2007 and British Association for Psychopharmacology, 2004).

Drug and alcohol and obstetric services should provide an integrated service and develop a joint care plan. Good co-ordination will provide better services for the young woman and the unborn child. Child protection for the unborn child should be considered and indeed for the young woman.

For those who are pregnant and alcohol dependent, benzodiazepines are the drug advised but the lowest doses should be used to avoid potential teratogenicity (British Association for Psychopharmacology, 2004). Medication for relapse prevention (e.g. acamprosate) should be avoided.

For those with opioid physical dependence, methadone is the drug recommended for the management of opioid dependence in pregnancy. Methadone maintenance combined with antenatal care can result in significant improvement in the health of the young woman and the foetus. There appears to be no adverse effect on the foetus or young woman, with improved birth weight being found, though the neonatal withdrawal syndrome should be anticipated and carefully managed.

In line with the Department of Health (2007) guidelines, the overall evidence indicates that methadone at a dose that stops or minimises illicit use is most appropriate for ensuring continuity of management of pregnancy and aftercare. This principle applies to all pregnant women though there is little evidence available to guide the clinician specifically in the adolescent.

For those considering detoxification it is advised that during the first trimester the person should be stabilised. The middle trimester is considered the most appropriate, with reduction of methadone in small, frequent reductions of 2–3 mg of methadone every 3–5 days as long as opioid use is not continuing; during the third trimester methadone metabolises more quickly and should therefore be stabilised, or increases in dosing and/or frequency of dosing may be required (Department of Health, 2007). However, stability with no illicit use is the main goal of treatment. Should there be any illicit use, then increase in dose or cessation of this slow reduction regime should be considered.

8.4 Young offenders

Some young people who offend may not have previously engaged with substance misuse treatment services before they have had contact with the youth justice system. They may be wary of interventions and need support to help them to understand the treatment options available to them and the benefits and risks associated with each.

Specialist substance misuse treatment providers are encouraged to work closely with youth justice agencies, including YOTs and custodial establishments, to develop joint working arrangements and care plans for young people.

The Youth Justice Board is actively promoting a system of seamless continuity of care from community to custody and back to community. Community services can contribute to this by proactively working with custodial establishments to help young people to receive the best possible care and ensuring that any progress made in custody is not lost when the young person returns to the community.

Custodial establishments have received guidance and encouragement to provide a range of pharmacological management responses to substance misuse needs which match closely with this guidance to help promote continuity of care. Community providers can check with local establishments to determine what interventions are offered and if there are opportunities for joint development initiatives. Some young people will be placed in custodial establishments outside the local area and while this may make contact with the establishment more difficult every effort should be made to do so. Technology such as video or telephone conferencing could be used to help to facilitate this; some YOTs have access to this technology and may be able to assist in facilitating it.

Appendix 1: Parental responsibility holder

The Children Act 1989 sets out who has parental responsibility:

- The child's parents, if married to each other at the time of conception or birth.
- The child's mother, but not the father if they were not married, unless the father has acquired parental responsibility via a court order or a parental responsibility agreement or the couple subsequently marry.
- The child's legally appointed guardian – appointed either by a court or by a parent with parental responsibility in the event of their own death.
- A person in whose favour a court has made a residence order concerning the child.
- A local authority designated in a care order in respect of the child (but not where the child is being looked after under section 20 of the Children Act 1989, also known as being 'accommodated' or in 'voluntary care').
- A local authority or other authorised person who holds an emergency protection order in respect of the child.
- Foster parents, step-parents and grandparents do not automatically have parental responsibility.

(Department of Health, 2001, *Seeking consent: working with children*)

The Children Act 2004 sets out the parental responsibility for unmarried fathers:

Unmarried fathers do **not** have automatic parental responsibility. Unless they have registered or re-registered their names on their children's birth certificates after 1 December 2003, in which case they **will** have parental responsibility for their children. Therefore:

- If an unmarried father has a child after 1 December 2003 and is registered on the birth certificate, he will have parental responsibility.
- If a child was registered before 1 December 2003 and the father was not named on the birth certificate, the child can be re-registered to include the father's name. Once this has been done, the father will have parental responsibility.
- If an unmarried father's name is already on the birth certificate and the child was registered before 1 December 2003, the law has not changed this situation so the father will not have parental responsibility (unless obtained by other means).

(Children's Legal Centre, 2006)

Appendix 2:

Types of substances

The following list shows substances according to three categories: depressants, stimulants and hallucinogens. Many young people take more than one drug at the same time, which is known as poly-drug use. Combining substances in the same category will increase the effect, and in the case of depressants is strongly linked to overdose. Combining substances from different categories can have an unpredictable effect.

Substances are often known to young people by their street name. These have not been reproduced here, as professionals are encouraged to use the correct terminology to help young people understand the substances they have taken. There are a large number of street names that regularly change, are affected by fashions and have regional variance. For comprehensive information about street names and effects of substances, go to www.talktofrank.com

Table 8: Action of substances on the central nervous system

Depressants	Stimulants	Hallucinogens
<ul style="list-style-type: none"> • Opioids – heroin (street names include: brown, smack, H), methadone, buprenorphine, dihydrocodeine, codeine • Alcohol • Benzodiazepines – diazepam, temazepam • Inhalants – solvents, gas, glue and aerosols 	<ul style="list-style-type: none"> • Tobacco • Cocaine – crack • Amphetamine • Ecstasy – MDMA (methylenedioxy-methamphetamine) 	<ul style="list-style-type: none"> • Cannabis (also has a sedative effect) • LSD • Magic mushrooms • Ketamine (also has an analgesic effect)

Appendix 3: Equality

Legislation that directly addresses equality

The Race Relations (Amendment) Act 2000, which amends the 1976 Act, prohibits race discrimination by placing a duty on public authorities (or bodies providing public services) to eliminate race discrimination, promote equality of opportunity, promote good relations and have systems in place to meet these obligations.

The Sex Discrimination Act 1975 (as amended) prohibits discrimination on the basis of sex and places a duty on public authorities to proactively promote equality. It is permissible for a service to be delivered separately for either sex where this is the most effective way for the service to be delivered, as in the case, for instance, of victims of sexual abuse.

The Disability Discrimination Act 1995 (as amended) offers similar protection to people of all ages with disabilities as are offered under the Acts described above. It also places similar obligations with regard to people with disabilities on public authorities or private bodies delivering public services.

The Equality Act 2006 outlaws discrimination on the basis of religion or sexual orientation in the provision of goods, facilities and services. It complements the Employment Equality (Religion or Belief) Regulations 2003 and the Employment Equality (Sexual Orientation) Regulations 2003, which make it unlawful for employers to discriminate on the basis of religion or sexual orientation.

Other legislation which, while not being directly relevant to this guidance, may have an impact on the agencies involved in the delivery of clinical services, includes:

- the Gender Recognition Act 2004
- the Sex Discrimination (Gender Reassignment) Regulations 1999
- the Equal Pay Act 1970 (as amended)
- the Civil Partnership Act 2004.

Local planning and delivery

Local areas are responsible for meeting the needs of all communities and should be aware that the provision of universally available services does not necessarily, by itself, meet those needs. There may be cultural or practical impediments to members of different

communities approaching mainstream services for help. Service providers have a duty to tackle this discrimination proactively.

For many areas, existing sources of information may be insufficient for the effective planning of clinical services to young people. This may be the case where, for example, a specific group is under-represented in treatment or access to other services, or where there has been significant demographic change. Commissioners and providers of clinical services should therefore consider putting in place systems to determine the baseline level and nature of needs, and should plan and deliver services accordingly. However, where data and information are not available at a local level, this should not inhibit the provision of appropriate services to meet assumed or anticipated needs. The extent to which this provision meets the needs of all communities should be monitored, and this information should inform ongoing delivery.

Commissioners and providers of services should consider the following key equality issues:

- access to comprehensive services to young women with children
- the provision of culturally competent services, including meeting language needs
- sensitivity to the wider issues of sense of self, particularly for young people of dual heritage
- the complex needs of service users with learning difficulties^{1,2}
- providing family-based services which address the needs of all families, as most widely defined
- investigating the means by which information might be obtained to determine patterns of drug use and service needs, particularly where there are significant gaps in evidence, such as the needs of lesbian, gay, bisexual, and transsexual young people (www.cypf.csip.org.uk/camhs).

1 Taggart L, Mc Laughlin D, Quinn B and Milligan V (2004), *An Exploration of Substance Misuse in People with Learning Disabilities Living within Northern Ireland*, University of Ulster.

2 Care Services Improvement Partnership (2007), *Positive Practice, Positive Outcomes: A Handbook for Professionals in the Criminal Justice System working with Offenders with Learning Disabilities*.

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