Chapter 16

Addictions, dependence and substance abuse

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Key statistics

Alcohol

- Alcohol is now the third leading preventable cause of ill health in Europe, after smoking and hypertension, and is the leading preventable cause of morbidity and mortality in working age adults.1
- Alcohol consumption in England has doubled in the last 60 years, with a fivefold increase in deaths from alcohol-related diseases such as liver cirrhosis.2
- Alcohol-related hospital admissions in England have doubled in the last 9 years.3
- In 2007, over 1.6 million adults in England were alcohol dependent, but a national needs assessment showed that only 6% of people with alcohol dependence access treatment each year).4

Tobacco

- Over the last 60 years, smoking in England has declined dramatically – from approx. 80% (m) and 40% (f) in the 1950s now down to <20% for the first time since surveys began.5
- Smoking is still the largest single cause of death and disease in England, killing over 79,000 people in 2011.6
- Smoking is the primary driver of health inequalities in England.
- Recent evidence suggests that mental health improves on stopping smoking,7 in addition to the physical benefits.

Opiates

- Globally, 12–21 million individuals are addicted to heroin; this equates to 9.2 million disability-adjusted life years (DALYs).
- In England in 2011/12 there were 8.4 opiate and/or crack cocaine users per 1,000 general population,8 and 155,000 people in treatment for opiate addiction.
- One in three members of the English prison population has a history of heroin use and dependence (compared with less than 1% of the general population).9-11
- Heroin/opiates contribute disproportionately to deaths: they are responsible for more than 50% of all drug overdose deaths in England.12

Benzodiazepines

- Benzodiazepine usage can be:
  - therapeutic dose prescribing – less than 30 mg of diazepam daily (or equivalent)
  - doses above the licensed limits
  - high doses, misused either alone or as part of polydrug abuse.
- About 10% of long-term users (users for more than 3 months) are physically dependent, with a characteristic syndrome on withdrawal. Up to a third of high-dose and longer-term users are at risk. Withdrawal problems have been known since the 1970s and official warnings have been issued, but high prescribing levels continue.

Commissioning: understanding the problem and the diversity of need

This chapter addresses addiction to/dependence on drugs (licit/illicit, medicines and other products) with dependence potential and abuse liability, where key evidence-based recommendations for action can be identified. Not all possible substances are covered, but the approach taken illustrates relevant analysis for other drugs too. Needs assessment defines healthcare need as the ‘ability to benefit’.15-15 We consequently examine alcohol, tobacco, drugs (with special attention to heroin/opiates) and benzodiazepines.

Dependence and associated harms

Different types of substances cause harm in different ways, over varying time periods. For alcohol, there is long-term harm from chronic exposure (e.g. liver damage and cirrhosis), as well as serious harm to self and others from acute intoxication (e.g. road traffic accidents, violence, injuries).4 For tobacco, the main health implications are not nicotine dependence per se but the associated major long-term harms of smoke exposure (e.g. lung cancer, heart disease)16 and also the harm, particularly to children, caused by passive smoking. For opiates, there are acute toxic harms (including overdose deaths) and also long-term harms from associated behaviours affecting both self and others (e.g. infection from and transmission of HIV and hepatitis C from needle-sharing, involvement in crime).17 For benzodiazepines, long-term health harms include impairment of cognitive functioning (‘pseudodementia’) and damage to driving ability.18,19

Benefits of behavioural change

At least three types of benefit from behavioural change can be identified:

(a) substantial individual benefit from major change in behaviours (e.g. after major treatments);
(b) widely dispersed population-level benefit from modest change in behaviours (e.g. after screening and brief interventions); and
(c) indirect benefit to others e.g. reduced HIV transmission, reduced crime (see Table 16.1).
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Table 16.1 Behavioural change: types of benefit for different populations

<table>
<thead>
<tr>
<th>Substantial individual benefit from major change in behaviours</th>
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<tbody>
<tr>
<td>- inpatient and residential detoxification and rehabilitation</td>
</tr>
<tr>
<td>- nicotine replacement therapy, including nicotine gum, patches, etc, and other non-nicotine treatments to help smokers quit cigarette smoking</td>
</tr>
<tr>
<td>- opiate substitution treatment to enable those injecting heroin to quit</td>
</tr>
<tr>
<td>- peer-led mutual help organisations such as Alcoholics Anonymous and Narcotics Anonymous to support individuals to maintain sobriety</td>
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<table>
<thead>
<tr>
<th>Widely dispersed population-level benefit from modest change in behaviours</th>
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<tbody>
<tr>
<td>- brief intervention in general medical settings, widely delivered to populations including those only with a different reason for health contact, to trigger reduction or quitting of the relevant behaviour.</td>
</tr>
<tr>
<td>- hepatitis B vaccination programmes to prevent viral infection</td>
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<tr>
<th>Indirect benefit to others</th>
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<tr>
<td>- reduced drink driving and harm to others; reduced domestic violence</td>
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<tr>
<td>- reduced harm to others via secondary inhalation of cigarette smoke</td>
</tr>
<tr>
<td>- needle and syringe exchange programmes to reduce sharing of needles and syringes and prevent transmission of HIV</td>
</tr>
<tr>
<td>- opiate substitution treatment to reduce levels of acquisitive crime and public nuisance</td>
</tr>
<tr>
<td>- hepatitis B vaccination to reduce transmission to others</td>
</tr>
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</table>

‘Duty of care’, ‘duty to detect’ and ‘duty to act’

Duty of care comprises both a duty to detect and a duty to act element.

Duty to detect requires a commitment to universal scrutiny for evidence of addiction problems – either as the presenting medical condition or from an opportunistic screening enquiry.

Duty to act applies to all medical practitioners, for all patients. Special attention is required when caring for disadvantaged populations, such as those with co-existing conditions, or in settings such as prisons or hostels.

Duty to detect and duty to act have important implications for planners of healthcare and provider organisations, as well as for all practitioners.

‘Hard-to-reach’, ‘hard-to-treat’ and ‘critical-to-treat’

Attention to hard-to-reach populations is an essential component of the healthcare provision in a locality. Addiction problems are often more prevalent among these populations and may be complicating their condition.

Hard-to-treat patients and populations have not obtained the expected benefits from standard approved first-line treatments. More intensive or more complex treatments must then be delivered.

Critical-to-treat patients and populations crucially need effective treatment of their addiction for proper management of their other health conditions (e.g. addressing smoking after a heart attack or stroke, addressing alcohol in a patient with liver disease, addressing heroin addiction that co-exists with pregnancy).
Whole-society commissioning: multi-modality for diversity

Commissioners and clinicians must deliver preventive measures and active treatments of proven efficacy. With prevention and treatment, it is not a case of either/or: balanced provision is required. The National Institute for Health and Care Excellence (NICE) has developed technology appraisals, guidelines and quality standards. Some preventive and secondary treatments continue to be provided despite the absence of an evidence base, even when well-conducted studies have demonstrated a lack of effectiveness. This is not acceptable.

Effective commissioning requires a balance of provision across different forms of public health and individual treatment modalities. NICE gives key guidance. Individual patients differ – one size does not fit all. Different patients will need different interventions, and the same patient will need different interventions as they progress through care pathways. One constructive approach to comprehensive healthcare provision is through a co-ordinated local consortium of providers (see Box 16.1).

Box 16.1  Consortium commissioning – the Lambeth/SLaM consortium model

- In Lambeth, the addictions group at SLaM (South London and Maudsley NHS Foundation Trust) functions as the contract lead for a multi-site, multi-agency service, incorporating both NHS and third sector providers.

- Each of the partners works in an integrated arrangement and plays their own distinct part in a local care pathway. Advantages include:
  - allowing funding to flow to consortium partners via sub-contracting agreements
  - preserving local ownership of the service while creating fuller engagement with local commissioners
  - improving access, enabling individualised service user reviews and creating easier movement to less intensive services when users are ready
  - allowing service users to engage with existing support services and service users’ networks
  - through the expertise of the consortium, supporting the development and maintenance of the knowledge base, capacity and competency of local community teams.
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- Training and support are provided both formally and informally to all consortium partners.
- As contract lead, the local NHS addictions group:
  - co-ordinates all information/reporting requirements
  - uses a single electronic patient record, regardless of organisation or service
  - uses single governance systems that inform the administration of service user involvement (SUI), complaints, safeguarding, contingency planning, etc.
  - leads on reviews of all aspects of the quality of services to promote shared learning and service improvement, including service user feedback, The patient experience data information centre PEDIC outcomes, mock inspections, etc.
  - audits, ensuring fidelity to the contract and service model across all sites
  - prepares reports for internal performance meetings
  - prepares reports for contractual meetings
  - assists all services with communication planning and events, including local scrutiny committees, stakeholder groups, etc.
  - performance manages each service in line with the National Drug Treatment Monitoring System, Public Health England guidelines and local priorities
  - monitors and reviews standards with regards to the Care Quality Commission, compliance with Monitor, service user feedback, etc.
- As a lead provider, the local NHS addictions group seeks consensus between the partners (following open discussion and transparent working) before adopting decisions. When and where this is not possible, escalation procedures and exception guidance is available to the consortium.
- The overall result is better quality provision, more easily accessible care, more collaboration between providers and easier movement, where appropriate, for patients from one stage/pathway/provider to another.

Box 16.2 Special A&E/addictions integrated care acute alcohol pathway

- In response to continuing high numbers of alcohol-related acute medical admissions and A&E attenders at King’s College Hospital, a special pathway has been set up to transfer suitable patients straight to the specialist inpatient alcohol unit at the Maudsley Hospital.
- Patients who are alcohol dependent and in need of detoxification are identified in the A&E department and transferred for inpatient assessment and care, including a four-day alcohol detoxification once they are medically well enough. This provides patients with a safe detoxification, assessment, preliminary motivational work, an introduction to 12-step mutual-aid programmes and planning for a return to community addiction services.
- This pathway has improved the clinical management of high-need and high-cost frequent attender patients who represent a high burden for the acute trust and mental health trust community services.
- The pathway has been possible because of the collaborative links between the two NHS trusts, which are both part of King’s Health Partners (an Academic Health Science Centre) and have developed a joint alcohol strategy. It has also supported other collaborative ventures between the trusts to improve the response to alcohol within the populations served by the hospitals.
- The funding for the pathway comes from the acute trust tariff, and is designed to produce benefits i.e. reduced lengths of stay and reduced readmissions of these patients. Unplanned discharges are rare and the pathway is highly rated by both patients and acute hospital staff.

The integration of wider mental health care with addictions care provision is particularly important. The separate commissioning of addiction services has led to loss of integration and reduced reference to NICE guidance. Alternatively, the commissioning of addiction services should be brought back to healthcare commissioning.

It is important that joint planning and provision exist between addiction services and various other healthcare areas – these include Accident & Emergency (A&E) (see Box 16.2), antenatal care, liver units, cardiac care, infectious diseases and sexually transmitted infections.
Chapter 16

The scale of the problem and its health consequences

Scale of the problem – alcohol

Alcohol is the third leading preventable cause of ill health after tobacco and hypertension. Among men of working age, alcohol is the leading cause of premature death. In England alcohol is consumed by 87% of the adult population, with 24% (33% of men, 16% of women) consuming alcohol in a manner potentially or actually harmful to health or wellbeing. The toxic and dependence-producing effects of alcohol contribute to over 200 different diseases.

Despite public interest in the cardio-protective effects of alcohol at low levels in middle-aged men, for many diseases (e.g. liver disease and some cancers) there is no level of alcohol consumption that is risk free, with the risk of harm increasing steeply with increasing alcohol consumption. In 2009, alcohol was estimated to be responsible for circa 15,400 deaths in England.

Alcohol-related hospital admissions in England had more than doubled to 1,220,300 by 2011/12, including more than a doubling of admissions wholly attributable to alcohol. Deaths from cirrhosis of the liver, an important indicator of population levels of alcohol-related harm, increased in England and Wales by a factor of five between 1950 and 2002, in contrast to reductions in most other European countries. The trend has continued in more recent years (see Figure 16.2). Alcohol contributes to over 200 different diseases, both communicable and non-communicable, producing both physical and mental damage (see Table 16.2). Some are acute (occurring shortly after consumption of alcohol) whereas others are more chronic, requiring extended exposure to harmful levels of drinking, sometimes over many years. Alcohol also contributes to wider social harms - absenteeism, unemployment, domestic violence, family breakdown, child maltreatment and public disorder. Excessive drinking is estimated to cost the UK economy £12.6 billion per annum, £3.5 billion of which is incurred within the NHS.

Figure 16.2 Trend in premature mortality (ages under 65) from chronic liver disease and cirrhosis, England and EU countries, 1980 to 2009

Source: EU: WHO, Health For All data set; England: ONS.
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Table 16.2 Leading mental and physical disorders wholly or partly attributable to alcohol

<table>
<thead>
<tr>
<th>Wholly alcohol attributable</th>
<th>Partly alcohol attributable</th>
</tr>
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<tbody>
<tr>
<td>■ ethanol poisoning</td>
<td>■ acute pancreatitis</td>
</tr>
<tr>
<td>■ acute alcohol withdrawal</td>
<td>■ injuries</td>
</tr>
<tr>
<td>■ delirium tremens</td>
<td>■ falls</td>
</tr>
<tr>
<td>■ alcohol dependence</td>
<td>■ road traffic accidents</td>
</tr>
<tr>
<td>■ alcoholic cardiomyopathy</td>
<td>■ intentional self-harm</td>
</tr>
<tr>
<td>■ alcoholic gastritis</td>
<td>■ suicide</td>
</tr>
<tr>
<td>■ alcoholic liver disease</td>
<td>■ assault</td>
</tr>
<tr>
<td>■ chronic pancreatitis (alcohol induced)</td>
<td>■ malignant neoplasm of the gastrointestinal system</td>
</tr>
<tr>
<td>■ foetal alcohol syndrome</td>
<td>■ malignant neoplasm of the breast</td>
</tr>
<tr>
<td>■ Wernicke-Korsakoff syndrome</td>
<td>■ epilepsy</td>
</tr>
<tr>
<td>■ ischaemic cardiomyopathy</td>
<td>■ hypertensive diseases</td>
</tr>
<tr>
<td>■ chronic pancreatitis</td>
<td>■ cardiac arrhythmias</td>
</tr>
<tr>
<td>■ psoriasis</td>
<td>■ haemorrhagic stroke</td>
</tr>
<tr>
<td>■ low birth weight</td>
<td>■ ischaemic stroke</td>
</tr>
<tr>
<td>■ spontaneous abortion</td>
<td>■ chronic pancreatitis</td>
</tr>
<tr>
<td>■ diabetes</td>
<td>■ psoriasis</td>
</tr>
<tr>
<td>■ ischaemic heart disease</td>
<td>■ depressive disorder</td>
</tr>
<tr>
<td>■ anxiety disorder</td>
<td>■ psychotic disorders</td>
</tr>
</tbody>
</table>

Figure 16.3 Adult smoking prevalence in Great Britain, 1974-2011, by gender, adults aged over 16

Source  ONS General Lifestyle Survey 2011.
Scale of the problem – tobacco

Smoking is one of the largest causes of preventable mortality and morbidity, both worldwide and in the UK. Every year smoking (and secondhand smoke) kills 6 million people around the world,\(^{29,30}\) including 79,000 people in England.\(^{31}\) Quitting smoking reduces health risks to near normal levels within 10 years of stopping.\(^{32,33}\)

In 2005, the World Health Organization (WHO) Framework Convention on Tobacco Control outlined a set of demand and supply reduction strategies that included both population and individual measures – price increases, tobacco promotion bans, bans on smoking in public places and workplaces, mass media education and information about smoking, treatment for smokers and widespread surveillance and monitoring.

In the UK, major progress has been made over the last half century. Smoking prevalence in the UK has now fallen below 20% for the first time in 80 years\(^3\) (see Figure 16.3). These reductions continue to accrue,\(^3\) including reduced smoking by children and teenagers.\(^3,4\)

However, as smoking prevalence has decreased, a large socio-economic gap has emerged, with smoking now twice as prevalent in economically less advantaged communities\(^35\) and at even higher levels among other disadvantaged groups (e.g. prison inmates).\(^11,36\) Smoking is now the key driver of health inequalities in England.\(^37\) A key development over the last 20 years has been the recognition that smoking is an addiction, driven by nicotine.\(^*\) This has prompted the development of effective treatments for smoking, utilising nicotine replacement therapy (NRT), varenicline, behavioural support and other interventions to increase successful quitting.\(^38\) Health professionals can increase the uptake of these evidence-based interventions. Disappointingly, however, identification, advice and signposting to effective support for smokers by health professionals are still not routine.\(^39,40\)

Scale of the problem – illicit and non-prescribed drugs, with a focus on heroin/opiates

Illicit drugs are used by approximately a quarter of a billion people worldwide. According to the 2014 World Drug Report from the United Nations Office on Drugs and Crime, an estimated 162–324 million people used an illicit drug at least once in 2012 (5.2% of the global population aged 15–64),\(^41\) including 125–227 million using cannabis, 14–21 million using cocaine and 13–20 million using opiates. Approximately 10% of this total population used a drug by injection (mostly heroin but also cocaine). The United Nations estimates that 27 million people have a drug problem.

According to the 2010 Global Burden of Disease Study, dependence on illicit drugs accounts for 20 million DALYs (0.8% of global all-cause DALYs), with heroin/opiate dependence prominent at 9.2 million DALYs.\(^42\) Injecting drug use is also a risk factor for HIV (2.1 million DALYs) and hepatitis C (0.5 million DALYs). The UK is among the countries with the highest rate of burden (alongside the US and Russia).

Of the illicit drugs used in the UK, heroin is notable for being acutely hazardous and aggressively addictive, with an estimated quarter of a million heroin/opiate dependents.\(^43\) After rising relentlessly for a quarter of a century, the population of illicit opiate users in England has been falling modestly in recent years (see Table 16.3).

Table 16.3 Estimated number of opiate users and rate (thousands) population, England (2004-2012)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of opiate users (95% CI)</th>
<th>Opiate rate per 1,000 population (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004/05</td>
<td>279,753 (292,941–292,941)</td>
<td>8.53 (8.48–8.88)</td>
</tr>
<tr>
<td>2005/06</td>
<td>286,566 (281,668–299,394)</td>
<td>8.60 (8.46–8.99)</td>
</tr>
<tr>
<td>2006/07</td>
<td>273,123 (268,530–283,560)</td>
<td>8.11 (7.98–8.42)</td>
</tr>
<tr>
<td>2008/09</td>
<td>262,428 (258,782–268,517)</td>
<td>7.69 (7.58–7.90)</td>
</tr>
<tr>
<td>2009/10</td>
<td>264,072 (260,023–271,048)</td>
<td>7.70 (7.58–7.90)</td>
</tr>
<tr>
<td>2010/11</td>
<td>261,792 (259,260–269,025)</td>
<td>7.59 (7.52–7.80)</td>
</tr>
<tr>
<td>2011/12</td>
<td>256,163 (253,751–263,501)</td>
<td>7.32 (7.25–7.53)</td>
</tr>
</tbody>
</table>

* For more information see https://www.rcplondon.ac.uk/publications/nicotine-addiction-britain
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**Box 16.3  Novel Psychoactive Substances also known as ‘Legal Highs’**

Over the last 10 years, novel psychoactive substances (NPS) have flooded the UK market, advertised in head shops and over the internet as ‘safer’ and ‘legal’ alternatives to illicit drugs. In reality, information on their effects is minimal or inaccurate, and what we are currently seeing is that they can be just as harmful and addictive as illegal drugs like cocaine, ecstasy and ketamine. The regular development of further NPS, combined with the ability of the Internet to spread information quickly, presents a number of challenges for public health around the world. In 2013, more than one new substance was reported every week.

The products are just a click away from our homes and are therefore available to everyone, including young people, who are among the most at risk. Convenient labelling of NPS maintains that they are ‘not for human consumption’, creating a loophole which can sometimes allow them to be distributed cheaply and remain legal and easy to obtain.

NPS have enjoyed a boom in popularity in particular because of the inability of standard drug tests to identify them. While users view this as an advantage, without knowledge of their pharmacological/toxicological profile their use is considered dangerously experimental.

Many NPS are research chemicals, sometimes even discarded products from drug research. They are produced mainly in Asian countries and usually on a large scale. Overall, NPS belong to a range of categories, including:

- latest generation phenethylamines/MDMA-like drugs, such as ‘fly’ drugs, NBOMe derivatives, DMAA and a range of indanes
- scannabimimetics (‘spice’, ‘K2’ drugs)
- synthetic cathinones (‘meow meow’, ‘bath salts’ and others)
- latest generation tryptamine derivatives such as 5-Meo-DALT, AMT, etc
- GHB-like drugs
- PCP-like drugs, such as methoxetamine, 3-MeO-PCP, etc
- piperazines, e.g. BZP
- herbs/plants, such as *Salvia divinorum*, *Mytragyna speciosa*/kratom
- medicinal products, including a range of opiates/opioids, gabapentinoids, novel benzodiazepines/sedatives (e.g. phenazepam or ‘Zannie’), stimulants (e.g. ethylphenidate) and antiparkinsonians/anticholinergics (e.g. orphenadrine, tropicamide)
- performance- and image-enhancing drugs: super-strength caffeine tablets, cognitive enhancers (e.g. piracetam).

*This text was kindly supplied by Professor Fabrizio Schifano, CRI Consultant Psychiatrist and Chair in Clinical Pharmacology/Therapeutics at the University of Hertfordshire*
In England during 2012, approximately 155,000 patients received treatment for heroin/opiate addiction, with patients aged over 40 making up 34\% of this total.

Non-medical use of and addiction to prescription opioid medication is a cause for concern, particularly in the US, Canada and Australia. To date there has not been an equivalent visible increase in non-medical use of these medications in the UK. GPs will continue to have a vital role in the appropriate prescribing and clinical monitoring of patients’ response to painkiller medications and onward referral to specialist services.

Health complications from the use of illicit drugs include HIV/AIDS, hepatitis C and hepatitis B infection – primarily from sharing used needles and syringes, but also through sexual contact. Widely available opiate substitution treatments (OST) and needle and syringe exchange schemes have been key evidence-based components of the UK’s effective healthcare response. However, hepatitis C infection has become widespread, affecting more than 50\% of injectors.

Heroin/opiates warrant special attention because, even though they are less widely used, they are significantly burdensome to global health and are particularly implicated in drug-related deaths (hypoxia following overdose being the most common cause). The focus on helping patients and their families to recognise and reduce behaviours that increase the risk of opiate overdose, and on how to manage overdose emergencies, is an essential component of competent clinical care.

A very high prevalence of heroin use exists in the prison population. In England, more than a quarter of all those detained in prisons (on remand or sentenced) have been found to have a history of heroin problems. There is also a high prevalence of problems with alcohol and other drugs, and mental health co-morbidity. The period in prison can be an opportunity to address untreated physical and mental health problems, especially following the transfer of responsibility for prison healthcare to the NHS.

Heroin (and opiates generally) contribute disproportionately to drug overdose deaths (they are responsible for more than 50\% of them). Release from prison is a time of marked excess mortality for those with a history of heroin use. Other intense clusterings of deaths have been reported when users leave hospital or drug-free rehabilitation.

**Scale of the problem – benzodiazepines**

Estimates of the prevalence of normal-dose users, high-dose users and misusers of benzodiazepines vary widely. Many normal-dose users are maintained for years on therapeutic doses and encounter few problems until they try to withdraw. Prescriptions dispensed from community pharmacies across England can be examined over time (see figure 16.4).

A large survey of benzodiazepine use across Europe interviewed representative samples in France, Germany, Italy and the UK equating to over 200 million people. Sleeping tablets were being taken by 1.6\% of the population of the UK. The rate of anxiolytic use in the UK was 0.6\%. Two-thirds of subjects had been taking benzodiazepines continuously for over a year.

Many studies have looked at benzodiazepine use in the elderly. They have found usage to be greater, of longer duration and associated with more problems (such as falls and fractures) than usage in younger adults.

Sedation is the most common subjective effect of benzodiazepines, despite the onset of some tolerance. Objective effects such as poor co-ordination are related to dose, compound and individual sensitivity. Acute and short-term administration of benzodiazepines clearly impairs higher brain functions such as learning and memory. Alcohol and other drug use magnifies these effects. In a meta-analysis, improvement was seen in all areas of cognitive function up to 6 months after withdrawal. In addition, sedative drugs increase the likelihood of accidents and injuries. Paradoxical excitement can also occur.

Cognitive, psychomotor and practical impairments often become greater with longer-term use of benzodiazepines. Severe cognitive decline may ensue and may be misdiagnosed as a dementing process.

A withdrawal syndrome occurs particularly with high-dosage and long-term use, but its severity is less closely dose related. Severe withdrawal symptoms can occur with sudden cessation, and also sometimes with slow withdrawal over several months or even years. The most characteristic symptoms are hypersensitivity to light, sound and touch. Occasionally fits or paranoid or confusional psychosis may occur.

**The importance of addressing addictions**

A cultural change is required within the NHS and social care organisations to combat stigma and discrimination against people with addiction problems, and to ensure equity of care and delivery of effective interventions to address addiction problems and related health problems.

Active participation of all healthcare staff is crucial to discharge responsibilities of duty of care – both duty to detect and duty to act.

**Addressing addictions – alcohol**

Effective public health measures to reduce harmful drinking need to include measures to reduce the affordability and availability of alcohol, thereby reducing alcohol-related harm at a population level.

All NHS staff need to be competent to deliver appropriate care for people who consume alcohol in a hazardous or harmful way. This should include alcohol screening and brief advice, with referral to specialist alcohol services for patients...
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Addressing addictions – tobacco

All front-line health professionals need to give very brief advice. The burden on busy health professionals is therefore minimal. They need only raise the issue of smoking, remind smokers that support increases the success of quit attempts, and refer smokers to receive that support.  

An effective health service is health-promoting. Secondary and mental health NHS services are becoming completely smoke-free. Accessible support for all smokers should be advertised before smokers come in as patients, and must then be offered throughout patients’ stays and linked to community stop smoking services on discharge. Staff who smoke should be helped to quit and should be supported in doing this. (For an example of tackling smoking in a NHS mental health trust see Box 16.5.)

Levels of smoking among those with mental health problems are at least double those of smokers without such problems, and have not tracked decreases in smoking in the general population. Failure to monitor the physical health of people with mental health disorders contributes to this situation. Contrary to folklore, stopping smoking appears to be associated with improvements in mental health.

Smoking is an addiction: this has triggered harm reduction strategies. Continued smoking is largely driven by dependence on nicotine, whereas the damage done is due to other components of smoke. In 2013, NICE published ground-breaking guidance on tobacco harm reduction, which now needs implementation.
Addressing addictions – illicit and non-prescribed drugs, with a focus on heroin/opiates

For many people, addiction to opiates is a persistent and relapsing disorder, and only a minority successfully achieve lasting recovery following a single episode of treatment. In the US, studies have suggested that three to four episodes of treatment are the norm before stable remission is achieved.\textsuperscript{79}

Patients with heroin dependence need access to effective care. Co-morbid physical health problems are often overlooked, despite known elevated rates of cardiovascular and renal disease and diabetes among these populations,\textsuperscript{80} as well as high prevalence of tobacco smoking.\textsuperscript{81,82}

Older patients with heroin/opioid dependence are an increasingly common population. Services need to link mental and physical healthcare.

Front-line healthcare professionals are vital to detection, intervention and onward referral for people with hazardous and harmful substance use. A new, single-page version of the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST-Lite) can be completed in less than 2 minutes (see Box 16.6).

For specialist services, the Addiction Dimensions for Assessment and Personalised Treatment (ADAPT)\textsuperscript{84} enables clinicians to tailor treatment by assessing and monitoring changes in the severity and complexity of a patient’s health and social problems and their individual strengths.

Box 16.4 The King’s Health Partners Alcohol Strategy as an example of a local strategic approach to the care of patients with alcohol problems in contact with acute and mental health services

\textit{Good Health} is a shared alcohol strategy developed across the King’s Health Partners Academic Health Science Centre (see http://www.khpalcoholstrategy.org). Developed by bringing together a wide range of key stakeholders across the acute and mental health trusts, academia, public health and the local community, the strategy aims to reduce alcohol related harm in the population served by King’s Health Partners. It is supported by funding from Guy’s and St Thomas’ Charity.

The strategy includes several components to improve care for patients who misuse alcohol. It provides training for front-line clinical staff in acute and mental health care to identify, provide brief advice, and where appropriate refer patients with alcohol problems for more specialist help is a key component of the strategy.

It includes development of 7 days per week multidisciplinary Alcohol Care Teams to provide improved care and support for patients with alcohol problems across acute and mental health care, whilst they are in hospital, are being developed.

More assertive outreach interventions to better meet the needs of frequent alcohol related hospital attenders with complex needs are being developed and evaluated in partnership with King’s College London. Improved methods of data linkage of hospital information systems are being developed to identify, intervene and monitor alcohol related admissions.

An alcohol occupational health strategy is being developed to improve the health of the King’s Health Partners workforce, including 35,000 staff and 25,000 students.

Implementation of the strategy will be evaluated through funding from the NIHR South London Collaboration in Leadership in Health Research and Care (CLAHRC) and other research grants, and will be disseminated to the wider health economy in South London through the Health Innovation Network (Academic Health Science Network).
Box 16.5  The SLaM Addictions Clinical Academic Group drives an ambitious strategy to address high levels of smoking among patients and staff at the local NHS mental health trust

People with serious mental illnesses die prematurely and have significantly higher medical co-morbidity compared with the general population. High rates of smoking cause much of this excess morbidity and mortality. The prevalence of daily smoking among people with major depression, bipolar disorder and schizophrenia is 57%, 66% and 74% respectively. People with a mental illness are likely to be heavier smokers and more nicotine dependent than smokers in the general population.

Extraordinarily high levels of smoking exist among patients of addiction services (more than 80%). However, there are also high levels of willingness (around 40%) among such patients to tackle their smoking dependence. There are high levels of smoking among staff working in the addictions field (at 45%, more than twice the rate of the general public).

The SLaM (South London and Maudsley NHS Foundation Trust) Addictions Clinical Academic Group is leading a trust-wide response to this health inequality and is implementing a three-year plan with three distinct elements:

1. Preparing to be smoke-free from October 2014
2. Monitoring and sustaining a smoke-free environment and establishing a durable smoke-free culture across the whole organisation organization including electronic systems for reporting and referring all smokers for tobacco dependence treatment
3. Identifying groups who are treatment resistant and developing and testing novel treatments to enhance their previously unsuccessful quit attempts

Actions include:

1. Setting up and leading a trust-wide committee to oversee the smoke and tobacco dependence treatment policy implementation across four hospital sites, ensuring trust-wide delivery
2. Supporting each hospital site in forming a ‘site committee’ to help it become smoke-free ready, thereby enabling a tailored response to the policy
3. Rolling out a trust-wide training initiative to support clinical staff to acquire skills and competencies in pharmacological and behavioural treatment of tobacco dependence, including guidance on the use of the range of nicotine replacements, e-cigarettes, plus bespoke training for other staff groups e.g. porters, gardeners, domestic staff
4. Reviewing all sites to remove smoking shelters and associated paraphernalia and introducing new smoke-free signage
5. Production and wide distribution of Frequently Asked Questions’ and regular briefings
6. Service user and staff engagement, consulting on ‘how’ rather than ‘whether’ to go smoke-free
7. Developing and strengthening new electronic referral systems and a comprehensive clinical pathway for tobacco dependence for patients and staff across the whole Trust
8. Developing mechanisms for monitoring levels of smoking among patients locally and connecting with national databases
9. Allocating each site a named specialist smoke-free adviser to support both patients and staff in achieving and maintaining their newly acquired smoke-free status.
Chapter 16

Box 16.6  Example ASSIST-Lite questions

The following questions ask a patient about their use of psychoactive substances in the past 3 months. All questions are answered yes/no, with additional questions asked for each substance used.

1. Did you smoke a cigarette containing tobacco?
   1a. Did you usually smoke more than 10 cigarettes each day?
   1b. Did you usually smoke within 30 minutes of waking?
2. Did you have a drink containing alcohol?
   2a. On any occasion, did you drink more than four standard drinks of alcohol?
   2b. Have you tried and failed to control, cut down or stop drinking?
   2c. Has anyone expressed concern about your drinking?
3. Did you use cannabis?
   3a. Have you had a strong desire or urge to use cannabis at least once a week or more often?
   3b. Has anyone expressed concern about your use of cannabis?
4. Did you use an amphetamine-type stimulant, or cocaine, or a stimulant medication not as prescribed?
   4a. Did you use a stimulant at least once each week or more often?
   4b. Has anyone expressed concern about your use of a stimulant?
5. Did you use a sedative or sleeping medication not as prescribed?
   5a. Have you had a strong desire or urge to use a sedative or sleeping medication at least once a week or more often?
   5b. Has anyone expressed concern about your use of a sedative or sleeping medication?
6. Did you use a street opioid (e.g. heroin) or an opioid-containing medication not as prescribed?
   6a. Have you tried and failed to control, cut down or stop using an opioid?
   6b. Has anyone expressed concern about your use of an opioid?


Addressing addictions – benzodiazepines

Much benzodiazepine prescribing is for unlicensed or unspecified indications (‘off label’) or exceeds the licensed duration of use (typically 4 weeks as an anxiolytic or 2 weeks as a hypnotic). Specialist drug treatment services have been experiencing a rise in the number of cases involving sedatives and tranquillisers. This raises legal issues about breaches of the duty of care, laying prescribers open to actions for negligence and personal injury.

The various issues relating to use of benzodiazepines are not as clear cut as the apparent public consensus suggests. More frequently than not, prescribed doses are not considered to be excessive. In addition, despite the received wisdom, some patients find these medicines helpful (without an intolerable burden of adverse effects) and claim that their efficacy does not diminish over time.

Official recommendations concerning the use of these medicines are widely ignored. There is concern that some patients may be denied appropriate treatment because of undue fears. Treatment guidelines must be applicable in the ‘real world’ of clinical practice.

The issues of abuse and dependence will continue to raise concerns. Scheduling is in place but major loopholes exist on the Internet, to which access is effectively unlimited. It will be a Sisyphean task to control such self-medication.

Improving planning and provision

All NHS staff need to screen, deliver brief interventions and, when necessary, make appropriate referrals to specialist services. There is a duty of care, including a duty to act. Failure to treat patients with addictions has a detrimental impact on health and mortality, and incurs considerable costs to the NHS and wider society.

There are clear public health and economic benefits from the early detection of clinically significant, low/moderate-severity substance problems. People at this end of the problem spectrum are not seen within specialist addiction treatment services, but they do have regular contact with their primary care practice and the family doctor is the natural first point of contact. The primary care setting is therefore well positioned for screening and offers of help to people with low/moderate-severity problems. Brief interventions for reducing excessive alcohol use and helping patients quit smoking can be delivered effectively in the primary care setting.

Specialist treatment services for people with more severe addiction problems also need to be commissioned.

† See Lader, M. ‘Benzodiazepines revisited – will we ever learn?’ Addiction, 2011; 106: 2086-210.
resourced and provided based on the prevailing need in local populations. NICE guidance sets out recommended effective treatment interventions at the specialist as well as the generic level – technology appraisals, clinical guidelines and quality standards.92–94 As yet, implementation is patchy in all addiction areas.

Improving planning and provision – alcohol

Public health measures directed at the whole population have a strong evidence base and are recommended by both NICE and WHO.26,95 Effective measures include reducing population level alcohol consumption through taxation72 and raising the minimum unit price at which alcohol can be sold.96 The latter is a more targeted measure towards heavier and underage drinkers. Reducing affordability reduces harmful drinking and alcohol-attributable diseases. Restricting availability through reduced hours of sale and reduced density of outlets is also evidence based and effective.72 Public or school education campaigns on alcohol are ineffective unless carried out in conjunction with effective alcohol counter-measures.

People who drink in a hazardous or harmful way, in which their drinking is potentially or actually causing health harm, can benefit from opportunistic screening and simple, brief interventions provided by general health and social care professionals.95 The benefits include reduced alcohol consumption, improved health and reduced NHS service use. Simple, brief interventions are both effective and cost-effective.95 However, they are rarely implemented in typical clinical practice. This implementation gap relates to negative attitudes, lack of training and competing priorities for front-line staff.97 Policymakers need to provide effective training, incentives and support to encourage wide-scale implementation.

Alcohol dependence is estimated to affect 1.6 million adults in England.4,93 NICE has identified interventions for alcohol dependence which are effective when delivered in evidence-based care pathways. However, only 109,683 (7%) of alcohol-dependent adults were in contact with structured specialist treatment interventions in 2011/12.98 This gap partly relates to the failure to identify alcohol dependence in primary and secondary care, and the inadequate capacity of specialist treatment services.4,93 There is also considerable variation in the level of access to treatment across England, ranging from 8% in the highest-performing region to less than 1% in the lowest.99

Some people with alcohol dependence are particularly hard to engage in alcohol treatment by virtue of a variety of factors, including social disadvantage and exclusion, lack of awareness of the health harms of alcohol and fear of social stigma. This group often experiences multiple mental, physical and social consequences and, as a result, incurs considerable costs across the NHS and social care and criminal justice services. These are additional and currently missed opportunities to engage. Care for this population needs to be properly co-ordinated within an integrated care pathway.4

Improving planning and provision – tobacco

Treatments of proven efficacy can increase smokers’ chances of stopping successfully. The most effective treatment is a combination of pharmacological and behavioural support, which increases the chances of stopping successfully fourfold (compared with no support).100,101 Such treatment is available in community stop smoking services.102,103

Brief advice from health professionals can trigger successful quit attempts.104 Behavioural support includes strategies to manage cravings and withdrawal symptoms,105,106 and guidance on the use of pharmacological treatments.

Group support is more effective than individual support, with specialist advisers being more effective than those delivering cessation support alongside other clinical duties.108 Behavioural support can also be delivered via telephone,108 text messaging or the Internet.

Pharmacological treatments include nicotine replacement therapy (NRT), bupropion and varenicline. NRT is now available in several different forms: gum, patch, lozenge, sublingual tablet, nasal spray, inhalator, buccal pouch, mouth spray and dissolvable strips. There is no evidence favouring one form, apart from higher doses being more effective.104

Smokers who cannot stop abruptly need help to cut down in the interim, with encouragement to switch to alternative forms of nicotine. Electronic cigarettes (battery-powered devices that deliver nicotine via inhaled vapour) were introduced in 2004 and have increased rapidly in popularity. Only 8% of current smokers had tried e-cigarettes in 2010,109 rising to 52% by 2014.110 E-cigarettes contain no tobacco and are not burnt, and nicotine itself is much safer than tobacco smoking.111

E-cigarettes help more smokers to quit112,113 and increase the success of quit attempts.114 A small pilot that tested e-cigarettes with people with serious mental illness found reduction/cessation of cigarette smoking112 and also that e-cigarettes appeared to enable the quitting of tobacco, even in those unwilling to stop.116

Some concerns have been raised about e-cigarettes including their potential attractiveness to young never-smokers, the recent entry of the tobacco industry to the e-cigarette market and, at the time of writing, marketing and product standards had not been introduced. Monitoring and surveillance are warranted so as to detect, at an early stage, any evidence of significant unintended consequences and ensure that their implications for public health are guided by the evidence base. However, the approach holds real potential, if the greater ‘grip’ on the target population can be utilised to effect robust quitting of tobacco-smoking.

Outside the health service, other population-led tobacco control strategies need attention. Priorities include further hard-hitting mass-media campaigns,117 implementation of standardised packaging which has recently been associated with a dramatic drop in daily smoking prevalence in Australia,118,119 a licensing system for retail outlets selling...
tobacco and extending smoke-free places (e.g. banning smoking in cars carrying children).

**Improving planning and provision – illicit and non-prescribed drugs, with a focus on heroin/opiates**

Heroin/opiate addiction is notable for several evidence-based interventions that exist at public health and individual health levels, which can produce major health benefits.\(^{\text{17,50}}\)

Opiate Substitution Treatment (OST) has been extensively studied and reviewed by Cochrane\(^{\text{120–123}}\) and NICE\(^{\text{92,93,124}}\) and comprises supervised daily methadone (a long-acting oral opioid) or sublingual buprenorphine, moving to unsupervised dosing when good adherence and drug-free behaviour are achieved.\(^{\text{125,126}}\) OST (and other interventions) are subject to routine outcome monitoring in England: the National Drug Treatment Monitoring System covers all publicly funded services, and records clinical outcomes\(^{\text{127,128}}\) and benchmarks performance for all services for local commissioning.

However, problems of attrition remain, and treatment requires regular review and adjustment (particularly if illicit use or injecting persist).\(^{\text{129}}\) A more recovery-orientated approach incorporating OST has been described.\(^{\text{125}}\) In this approach, interventions are tailored to each patient’s needs by phasing or sequencing appropriate care and ensuring access to other services as required.

While methadone and buprenorphine are the front-line medication-assisted treatments for opioid addiction, a small sub-set of entrenched heroin addicts exists who appear treatment resistant and for whom intensive treatment with supervised heroin maintenance has shown good benefits\(^{\text{130–133}}\) and is a necessary second-line treatment.

The opposite approach (i.e. using opioid antagonists/blockers) utilises naltrexone, which NICE has reviewed\(^{\text{93,13}}\) and found to be cost-effective, but with extremely poor adherence. Despite highly efficient opiate blockade, poor adherence limits the benefit obtained.

A separate, important component of public policy response involves needle and syringe exchange schemes, as reviewed by NICE.\(^{\text{135}}\) The purpose of these is both individual health benefits (quitting the sharing of needles/syringes and avoiding infection with the HIV, hepatitis B or hepatitis C viruses) and public health benefits (reduced transmission of these infections).

Community-based mutual aid (e.g. Narcotics Anonymous) has an encouraging recent research evidence base.\(^{\text{136}}\) NICE recommends that clinicians facilitate initial contact.\(^{\text{137}}\) Drug-free residential rehabilitation has attracted criticism from Cochrane\(^{\text{138}}\) for a lack of randomised controlled trial-type evidence, but is important for those for whom OST is not appropriate, does not deliver benefits or is not acceptable.\(^{\text{17}}\)

Hepatitis B vaccination is simple and effective, and yet is rarely provided. Vaccination through prison healthcare delivers benefits.\(^{\text{56,56,139}}\) Recent community-based studies identify much higher levels of vaccination with voucher incentive programmes.\(^{\text{140,141}}\)

In hospital and ambulance settings, an injection of naloxone (an opioid antagonist) rapidly reverses opioid overdose, and is routinely used. Take-home emergency naloxone schemes provide a pre-supply of naloxone, plus training in overdose management to family members, non-medical potential first attenders (e.g. hostel staff) and friends (including peer drug users). National schemes now operate in Scotland\(^{\text{142}}\) (see Box 16.7) and Wales,\(^{\text{143}}\) and wider implementation is recommended by the Advisory Council on the Misuse of Drugs.\(^{\text{144}}\)

**Improving planning and provision – benzodiazepines**

Caution needs to be exercised with benzodiazepine prescribing and use. Two groups are at particular risk: those using benzodiazepines for a long time for a chronic disorder (e.g. insomnia) who do not abuse their prescriptions;\(^{\text{146}}\) and those who abuse their prescriptions or buy benzodiazepines illicitly – this is usually associated with other substance misuse (e.g. of opiates).\(^{\text{147–149}}\)

Problems with benzodiazepines are being extrapolated to other psychotropic drugs, causing an increasing perception that all psychotropic drugs are ‘addictive’. This imperils more valuable medications, such as antidepressants in the severely depressed.

A stepped-care approach to benzodiazepine discontinuation is recommended, beginning with advice from the GP and systematic tapering of the dose. These minimal interventions are often surprisingly cheap and effective.\(^{\text{150,151}}\) Hospital-based discontinuation is used as a last resort. Substitution of a long-acting benzodiazepine such as diazepam is often used to facilitate withdrawal. Three major intervention approaches are effective – education, audit and feedback – and alerts are also key;\(^{\text{152,153}}\) after this, tapering over weeks or even months should be instituted. Similar regimens are effective in the elderly.\(^{\text{151}}\) Problems may be more challenging for the remaining severely dependent patients.

Clinical management in Northern Ireland utilises exemplary comprehensive advice to GPs on prescribing and withdrawing benzodiazepines and Z-drugs (see Box 16.8), including general advice, appropriate questionnaires and case reports. In general, patients’ advocacy groups would prefer a national tranquiliser treatment agency to be set up, separate from the existing addiction treatment centres.
Box 16.7 Pre-provision of emergency take-home naloxone to prevent opioid overdose deaths (Scotland)

Rates of drug-related deaths in Scotland are among the highest in Europe. The majority of these deaths is accidental, involve opioids, are witnessed and are therefore preventable. In 2011 the National Take Home Naloxone (THN) Programme was launched and it was rolled out in 2011. The THN programme is coordinated and monitored by an expert National Naloxone Advisory Group. The central programme supports:

- a Naloxone Coordinator and a Training and Support Officer;
- the development of information and training materials including www.naloxone.org.uk;
- reimbursement to NHS Boards for the THN kits issued in their area;
- in-depth monitoring and evaluation, including measuring progress against a baseline measure (by Information Services Division of NHS National Services Scotland).

In addition, a specific monitoring indicator has been established for the programme: a decrease in the number of opioid-related deaths, and opioid related deaths within 4 and 12 weeks of release from prison.

Increasing the reach and coverage of THN has been a Ministerial priority for Scotland’s Alcohol and Drug Partnerships (ADPs). Each local health board area has a local naloxone coordinator and the Scottish Naloxone Network is a forum for local naloxone coordinators to share good practice, receive updates on current policy developments, and ‘troubleshoot’ relevant issues. ‘Training for Trainers’ is provided to local staff involved in provision; and a National Naloxone Peer Education Programme is provided for people who use (or formerly used) drugs and wish to become peer educators/trainers.

**Training and supply**

Training in overdose management and emergency interim naloxone administration is delivered by a range of staff – nurses, pharmacists, voluntary sector workers and peer trainers, generally as a brief intervention (15-20 minutes) and occasionally in a group setting.

Training and supply takes place in the community and in all 15 prisons in Scotland.

Naloxone is a Prescription-Only Medicine, and a Patient Group Direction is used to provide naloxone – mainly by nurses working directly with people who use drugs, and in some areas by pharmacists (all after training).

Family members/carers can be supplied with THN (consent from the person ‘at risk’ of overdose must be provided). Services who may come in to contact with those at risk of overdose can be supplied with THN for use in an emergency, which is covered by the Lord Advocate’s Guidelines.

Between April 2011 and March 2013 7,291 take-home naloxone kits were supplied as part of the scheme in the community and on release from prison.

For further detail, see the Service Evaluation of Scotland’s Take-Home Naloxone Programme, May 2014 – http://www.scotland.gov.uk/Publications/2014/05/6648/0

Box 16.8 The potential complexity of benzodiazepine withdrawal

‘Prescribing and withdrawing benzodiazepines and “Z” drugs: A Resource for General Practice’ (South Eastern Health and Social Care Trust, Northern Ireland)

The following bullet points are taken from an exemplary document ‘Prescribing and withdrawing benzodiazepines and “Z” drugs: A Resource for General Practice’, South Eastern Health and Social Care Trust, Northern Ireland, 2014) setting out the main principles for the prescribing of benzodiazepines and their subsequent withdrawal, as available in Northern Ireland. It contains much useful material including advice to patients on anxiety and insomnia, available resources including self-help groups, guidance on alternate treatments, questionnaires, case histories, etc.

- Initially choose a priority group, e.g. chronic users and/or those on high doses
- Assess motivation to change – patient/carer information leaflets
- Confirm diagnosis of dependence including urine screen
- Distinguish therapeutic dose dependence; prescribed high dose dependence; recreational high dose abuse
- Offer ADVICE (e.g. sleep hygiene), GUIDANCE (from trained professionals) and SUPPORT (counselling appointments)
- Switch to diazepam – reduce in 2-weekly steps of 2 to 2.5 mg/day – monitor with BDZ withdrawal symptom questionnaire, sleep and anxiety diaries
- It is better to reduce too slowly than too quickly
- Structured strategies – minimal intervention, a longer consultation, non-drug methods, referral to benzodiazepine nurse or Community Addictions Team (CAT)
- Treat any symptoms of depression
- Encourage regular exercise in reducing anxiety and insomnia

This document can be recommended as a model for services elsewhere and its advice can be readily implemented elsewhere. It can be accessed at http://www.setrust.hscni.net/services/2733.htm.

Continual monitoring of the situation is essential. In England, Clinical Practice Research Datalink data should track the extent of benzodiazepine and Z-drug prescribing by GPs. The data could be augmented by national surveys of community pharmacists to establish patterns of dispensing these prescribed medications. Attention should be focused on elderly people, particularly those using these drugs continuously over long periods. A specific problem relates to the self-aggressive behaviour caused by benzodiazepines. The effects of these drugs on driving and road safety are currently being addressed, although the practical problems involved are considerable.

**Authors’ suggestions for policy**

Seven key operational and clinical challenges that apply right across the addictions/dependence field need to be addressed, plus seven that are substance specific.

**Operational and clinical challenges (general)**

- Duty of care comprises a duty to detect and a consequent duty to act. The GP, primary and secondary healthcare teams are key to increasing identification and appropriate interventions. Failure to identify and failure to treat have serious short-term and long-term consequences for the patient, their family and society.

- Responsible commissioning needs to ensure the delivery of interventions which are compliant with NICE guidelines and individually tailored. Brief (and simple) interventions are appropriate when sufficient and should be universally applied, but referral pathways for fuller interventions are also essential when benefits are not achieved.

- One size does not fit all. Competent commissioning must ensure balanced provision of all components of the layered pyramid of healthcare provision (see Figure 1). This must include close connection and integration with the planning and provision of wider mental health care services. This could be achieved more effectively by bringing addictions commissioning back into healthcare commissioning.

- More specialist interventions (often more intensive and expensive) must be available to individuals who fail to benefit from first-line treatments. These are vital for severely affected individuals and those with co-existing health disorders. Increasing specialist addiction treatment for the in-need population would improve public as well as individual health and would reduce costs.

- Specialist centres are a crucial component of the pathway of care and must be incorporated into the competitive marketplace of service providers. They are essential to maintain training and research capacity, as well as to care for more hard-to-treat patients.

- The existing mechanisms of medical education need strengthening in order to improve knowledge, confidence and competence in this area for all practitioners. This needs to include better training of medical students, doctors and other healthcare staff in basic detection and intervention skills, as well as knowledge of when and how to refer patients for more specialised care.

- Greater strategic research and development (R&D) investment is needed across the addictions field, including in epidemiology and clinical trials to remain abreast of changing trends in substance misuse. Existing R&D commissioning mechanisms must proactively identify clinically influential and policy-relevant research trials to inform improvements in preventive and treatment responses.

**Substance-specific challenges**

- Alcohol – increasing the price of alcohol is the most cost-effective and targeted public health intervention to reduce harmful drinking, and has been endorsed by both NICE and WHO. Setting a minimum unit price below which alcohol cannot be sold would have the greatest possible impact on reducing alcohol-related harm in England.

- Alcohol – increasing the penetration of alcohol screening, brief interventions for hazardous and harmful drinkers and specialist treatment for people with alcohol dependence would have a major public health impact in reducing alcohol-related ill health and costs to society in England.

- Tobacco – a fifth of the population still smokes, despite good progress in recent years. Particularly high prevalence persists in more disadvantaged groups. The job is therefore not complete: tackling smoking needs continued and enhanced attention.

- Tobacco – a totally smoke-free health service is needed, with a joined-up pathway for treating smokers from pre-admission to support in the community following discharge. Existing population-level measures must be sustained. New measures such as standardised plain packaging can further reduce smoking prevalence.

- Drugs – the treatment of opiate addiction requires attention to both medication and non-medication components of care. Both components require adjustment to obtain the optimal benefits. A system is required for periodic checks of the health benefits being obtained, with particular care and attention paid to periods of change, terminations of treatment and continuation of care over this high-risk period.

- Drugs – training in first responder emergency management of an overdose should be provided to the patient, their family and other carers, as well as to non-medical and medical staff in all agencies in contact with heroin/opiate misusers. This includes how to give an interim intramuscular injection of naloxone while awaiting an ambulance.

- Benzodiazepines – more intensive support and specialist assessment is required for patients whose withdrawal from benzodiazepines proves problematic. This will often require referral for assessment and more specialist interventions. However, this specialist expertise is scarce and needs development, alongside arrangements for the commissioning of regional referral arrangements.
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