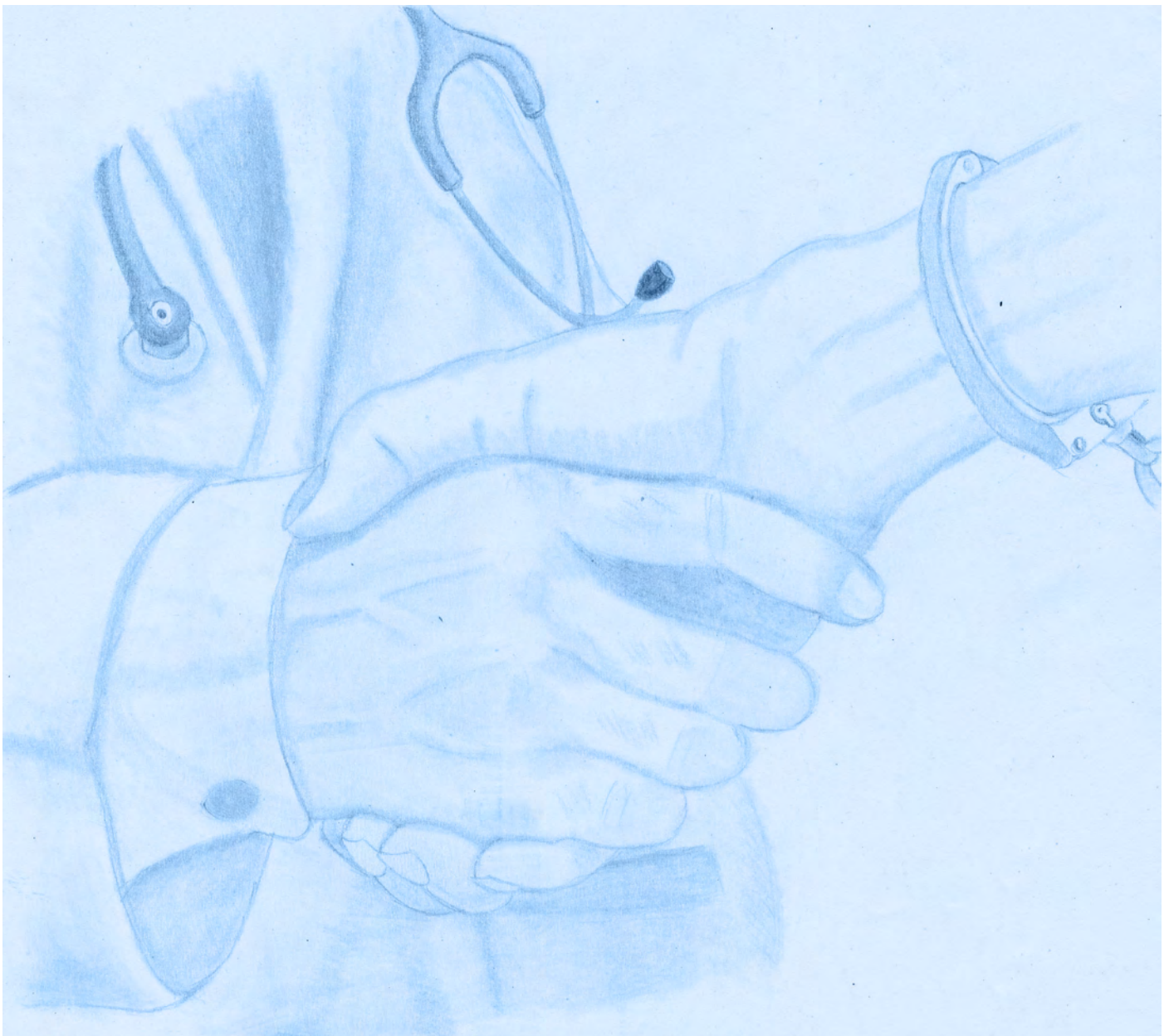


# Safer Prescribing in Prisons

## Guidance for clinicians

Second edition • January 2019



**The Royal College of Psychiatrists** welcome the publication of this document. Through the implementation of its advice and guidance, it has the potential to make a valuable contribution to improving care for patients in prison settings.

*Dr Adrian James, Registrar*

Illustrations provided by residents of HMP Bedford.



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# Purpose of the second edition



*Safer Prescribing in Prisons* was first published in 2011 by members of the Royal College of General Practitioners Secure Environments Group (RCGP SEG). The first edition was well received by prescribers and was one of the first publications to identify how widely and easily prescribed medicines could be misused. The relevance of this problem is now universally accepted as unprecedented levels of addiction to prescription medicines have become evident across Western society. RCGP SEG was one of the first organisations to identify the widespread misuse of pregabalin as a result of the direct day-to-day experience of its members as prescribers in the health and justice system.

## **Target audience**

This second edition is written to improve our knowledge and to provide practical support to clinicians working in prisons. It also has relevance for clinicians working in other secure environments and in the community. NHS England (NHSE) has supported this second edition recognising the importance of prescribing workstreams.

This edition will be of use to prescribers working in the community whose patients spend time in custody, when a patient is expecting a custodial sentence and when patients leave prison and return to general practice.

Community clinicians should be aware of important prescribing issues which are relevant in the prison system and recognise the importance of the prescribing decisions that they make which could affect treatment when a patient enters custody. Rationalisation of a patient's care before detention may help the transition into custody and the care provided by the prison healthcare team.

Other clinicians who may find this guidance a useful reference include forensic physicians and custody nurses; consultant psychiatrists; non-medical prescribers; pain clinic specialists and hospital clinicians.

## **Changes since the first edition**

The authorship team has changed for this edition. The lead author for both publications has noted the remarkable evolution in technology and digitalisation over the last seven years. The second edition includes a much wider reference base and many more electronic links than the first edition, which reflects technological advances. The authors have responded to feedback from the first edition and expanded the chapters which discuss substance misuse and palliative care. A chapter which considers wider prescribing issues has also been included.

Where possible, National Institute for Health and Care Excellence (NICE) guidance has been followed. However, NICE has only recently developed guidelines specific to prison healthcare and the majority

of NICE guidelines have not considered a prison perspective. For this reason, to improve upon safety and security within prisons, this publication has been adapted to specifically improve care in the prison setting. We aim to maintain equivalence of effect, equivalence of practice and equivalence of outcome wherever possible. RCGP SEG has published a position statement regarding equivalence and equity to best serve patients in prison and to support the clinicians who treat them. We have developed a consensus approach in embracing equivalence, equity and safety.

### Using this document

*Safer Prescribing in Prisons* is a guideline for prescribers. While it should serve as a useful reference it is essential that clinicians do not use it in place of the fundamental principles of good medical practice which are founded upon thorough history taking, examination, investigation, diagnosis, treatment and follow-up in conjunction with good quality contemporaneous note keeping. Prisoners, solicitors, coroners, the Prison and Probation Ombudsman (PPO), regulators of healthcare and other authorities may challenge clinical decisions, either in court or through other channels, and it is essential that clinicians working in prison follow good medical practice as well as referring to guidelines.

*Safer Prescribing in Prisons – Second Edition*, provides an in-depth and comprehensive resource outlining the important considerations for the clinicians who prescribe and treat within secure settings. The guidance is designed to highlight the necessary and important considerations when prescribing in these settings but also provide a rational approach to the appropriate and judicious use of medicines in our patient group. Additionally, pharmacy services have evolved to provide on-site access to clinical pharmacist and/or wider pharmacy services in order to help address poly-pharmacy and develop safer prescribing practices.

This publication is designed to promote and support good clinical practice. It is not intended to be an avoidance tool which supports poor clinical practice.

Safer Prescribing in Prisons should only be regarded as guidance; prescribers should always defer to the *British National Formulary* when making definitive prescribing decisions.

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# Equivalence of care in secure environments



The Royal College of General Practitioners Secure Environments Group is committed to the delivery of healthcare in the health and justice system to prisoners and detainees which is of the highest possible standards. It is well recognised from a legal perspective at international, European and UK levels that healthcare provision in secure environments should be of an 'equivalent' standard to that provided in the wider community. We recognise the benefit to our patient group by striving for 'equivalent' care and furthermore recognise the benefits this provides to our society as a whole.

## Defining equivalence

The publication of the RCGP Secure Environments Group position statement on '[Equivalence of care in Secure Environments in the UK](#)' provides a working definition for equivalence as:

'Equivalence' is the principle by which the statutory, strategic and ethical objectives are met by the health and justice organisations (with responsibility for commissioning and delivering services within a secure setting) with the aim of ensuring that people detained in secure environments are afforded provision of or access to appropriate services or treatment (based on assessed need and in line with current national or evidence-based guidelines) and that this is considered to be at least consistent in range and quality (availability, accessibility and acceptability) with that available to the wider community in order to achieve equitable health outcomes.

## A different approach

It must be recognised that there are aspects of care provision within secure settings that require a different approach or service model from that otherwise available in the wider community and it is therefore important to note that 'equivalence' does not mean that care provision in secure environments should be 'the same' as that provided in the community.

The requirement for the integrity of security of an establishment is not the direct responsibility of the healthcare provider. This is the definitive responsibility of the establishment authority. There are situations where healthcare provision has an impact upon security decision making. Therefore healthcare providers have a duty to understand and acknowledge the potential impact of their actions and work with their security colleagues to find appropriate solutions.

It is well recognised that healthcare practitioners need to tailor the care provided to their patients in secure settings with regard to specific needs. For example, access to structured substance misuse and alcohol treatment including assisted withdrawal (detoxification), mental health in-reach, on-site dentistry, blood-borne virus screening, sexual health, immunisations, suicide prevention and emergency care are all considered to be necessary services provided in the secure setting.

An important area where security and healthcare provision may conflict with one another includes prescribed medications which may be diverted or misused.



# Introduction



## Overview of the prison system

There are 110 prisons in England and Wales, 28 fewer than in 2011. The standing UK prison population stands at approximately 83,600 with an annual throughput, known as churn, of over 250,000. The highest prison population was 88,000 in 2011. 4,000 women are imprisoned and 79,000 men. 90% of prisoners are sentenced. 5% of prisoners are aged under 21. Women make up 5% of the prison population but 10% of the number going into prison each year. 70% of female prisoners receive sentences of six months or less.

The largest cohort of prisoners are men serving a sentence of over four years. Violence against the person is the most common offence category, followed by drug offences. 12% of prisoners are foreign nationals, half of whom are European. 25% of prisoners are from a non-white ethnic group. The average age of the prison population is rising which presents new challenges in planning health and social care. 500 prisoners died in prison in 2017. 200 of these deaths were not due to natural causes, the majority of these non-natural deaths being self-inflicted.

The approximate prison population of Scotland is 7,500 and that of Northern Ireland is 1,500.

The primary purpose of prison is to detain in custody individuals proven or suspected of committing a criminal offence which cannot be dealt with through a community-based sentence. While rehabilitation of offenders and preventing reoffending is at the forefront of criminal justice policy the core function of imprisonment is based upon security and public protection.

The value of prison in the rehabilitation of offenders is open to question and the conditions in prisons have been questioned throughout their existence. Many practices related to imprisonment have been challenged in the UK, including the length of sentences, imprisonment for short lengths of time for less serious offences, imprisoning women, remanding citizens to prison and the ability of magistrates to sentence to prison. England has high rates of imprisonment compared to its European neighbours. There is a consensus view that the prison population in England should be smaller and a liberal view that the conditions in prison should be greatly improved.

## Healthcare within prisons

The majority of prisoners have health needs and these needs are amenable to effective management within the prison system. Prescribing is one of several cornerstones in delivering effective care in prisons. For many prisoners who have experienced social deprivation and injurious

behaviour prison affords an excellent opportunity to improve health. The prison health workforce benefits from having developed additional skills in working in challenging environments with patients who may be particularly complex and are recognised as having a high prevalence of addiction and mental health problems including personality disorder and intellectual disability.

Pharmacotherapy and the prescribing of medication plays an essential role in prison healthcare. Prescribing medicines safely and effectively requires specialist skills and training and is governed by legal requirements. Prescribing to a prison population requires greater skill and vigilance such that the prescriber understands risks posed by the prison environment, the specific medicine and the effect of prescribing on an individual prisoner. A significant number of prisoners will misuse prescribed medication both in prison and in the community. Many prisoners are polydrug users. They may or may not also use illegal substances and alcohol or combinations of substances.

The opportunity to promote self-care and non-pharmacological treatments should be optimised in prisons. The choice of interventions should be patient-centred and include, for example, physiotherapy, psychological therapy and exercise. The promotion of activities to improve health and wellbeing should be encouraged. Imprisonment should be used to encourage prisoners to change their lifestyles. The use of non-drug therapies challenges over-reliance on pharmacological treatment and promotes self-care and self-reliance. Skills in de-prescribing should be optimised by clinicians.

### **Misuse of medicines**

Prescribed medicines and substances are widely used and misused in prisons. This presents enormous challenges to the safe running of prisons and other secure environments such as secure hospitals, police custody suites and immigration and removal centres. Prescribers play a crucial role in mitigating these problems by their skilful and judicious practice.

Within prisons it is widely recognised that some patients will request prescribed medication for the psychotropic effect of the drug rather than its therapeutic or licensed use. Many though not all of these patients will have a previous history of substance use. Prescribing medication where there is no or limited clinical indication is clearly inappropriate and clinicians who prescribe in prisons must recognise that medications will often be misused.

Psychotropic medications have a commodity value and are often traded in prisons. The acquisition, misuse and onward trading of prescribed medication cannot be supported and should be discouraged as it

presents risks in many ways. The fundamental principle of publishing this guidance is to support prescribers in understanding which medicines are commonly misused and empowering prescribers to exercise appropriate caution.

Inappropriate prescribing primarily presents a risk to the patient who is misusing a prescription medication. The most extreme example of this which is widely recognised is a patient who stockpiles amitriptyline and takes a lethal overdose.

Misusing multiple medications increases the potential for that person to suffer unexpected or self-injurious harm or death.

### **Trading of prescribed medication**

Many prisoners will divert their prescribed treatment by trading it or selling it into the illicit prison economy which presents a significant risk of harm to others as a result of side effects, overdose or interactions with other substances.

The diversion of prescribed medication to the illicit prison economy also presents risk to the wider prison environment as individuals, groups and gangs within prisons continue in maladaptive and criminal behaviours that may put the safety of other individuals at risk. Bullying, violence and intimidation are widely recognised in prisons and prescription medication and illicit substances play a major part in these problems. Prisoners are often intimidated into diverting medication which is prescribed appropriately to them. Coercion may force an individual to divert their medication and forego their own treatment which may have a direct adverse health consequence to them.

The trading of prescribed medications also places prisoners at risk through the accumulation of debt which may cause significant risk to the personal safety of the individual and their family and may also harm the patient's physical and mental health.

There are many ways to divert medication. Different prisons have different approaches to reducing diversion. The fundamental principles of good prescribing using the smallest quantity of the lowest dose are advised. Extreme caution should be exercised in allowing patients to keep medicines 'in-possession' where there is any doubt regarding safety or concordance.

During episodes of major concerted indiscipline, the prison pharmacy is often a key target for prisoners who seek to steal psychotropic medication, sometimes resulting in death.

Medication should usually be dispensed at the time of administration or on a daily basis and often for supervised consumption by individual dose where it is known to be widely misused. This has important time resource

implications for a prison healthcare team and custody officers. For less abused or harmful treatments daily, weekly or monthly dispensing may be appropriate, for example treatments for chronic disease depending upon the type of drug, patient factors and security factors within the prison.

In many prisons a significant proportion of the medication prescribed is administered at pre-set times via centralised or wing-based dispensaries. This is usually when diversion occurs and may take the form of simply pocketing medication to be traded or misused at a later time. The medicines queue should be appropriately supervised by the prison to maintain good order and discipline, and promote safety for everyone involved. Supervised doses may be concealed within the mouth and be removed later and sold. Sometimes medication is regurgitated as in the case of 'spit methadone' and there have been reports of saliva being dried to allow the diversion of sublingual preparations of particular medicines to enter the illicit economy, such as buprenorphine. Prescribers should not use 'daily in-possession' packs where there is significant risk of diversion. As a means of preventing overdose they offer only marginal benefit over 'weekly in-possession' supply.

Clinicians who work within prisons should be aware of patients presenting with exaggerated or fictitious disorders in an attempt to obtain a prescription which will be misused or diverted into the illicit prison economy.

Particular caution should be exercised when prisoners with a history of illicit or illegal drug use, particularly opioid misuse, request a prescription for pain, depression or sleep. Requests for 'Pregabs 300' (pregabalin 300mg tablets), 'Zops' (zopiclone) and Zispin (mirtazapine) in drug users should be treated with extreme caution. These medicines should not be prescribed to patients with significant addiction problems.

Prescribers working in prisons should be familiar with the requirement of mandatory testing of prisoners for drugs and recognise that by prescribing opioids they could be complicit in masking illicit opioid use. For example, a prescription for co-codamol would provide an explanation for a positive mandatory drug test in a patient who was misusing any other opioid including heroin.

### **Equivalence in healthcare**

The standard of healthcare provided in prisons should be equivalent to the standard that is delivered in the community. This equivalence is fundamental, but equivalence does not imply 'sameness'. Prisons are complex environments with challenging populations and in providing equivalence some areas of health delivery should be adapted to mitigate risk. The choice of medication is one area where clinicians who work within prisons should consider equivalence carefully. It is appropriate

that this occurs as the clinician has responsibilities, not only to the patient, but to the wider prison community. They have a responsibility, through prescribing appropriately for the environment in which they work, to reduce risks to the wider prison population. Where a prescriber is uncertain as to the appropriateness of a prescription request it is essential that the problem is discussed among a wider team as opposed to a poor prescribing decision being made.

### **Mitigating the risks of medication use and abuse**

On entering custody, it is good practice for the patient to receive a full medicines reconciliation (see [page 18](#)). Information should be requested from any prescribers and dispensers in the community to assist this process. A prompt response to this request from community prescribers and dispensers is very helpful in improving patient care.

When contacting the community services to request this information, it is recommended that providers include in their communication a request that the GP or pharmacy record is amended so that repeat medicines cannot be ordered while the patient is in prison.

On release, a discharge letter should include the current list of medicines being taken by the patient so that the GP can update their records and provide continued supply of relevant medication.

Each prison will have its own approach to reducing the inherent risks caused by medication use and abuse. Individual prisons have their own culture predicated on a large number of variables. The safe and effective running of a prison requires good leadership, effective policies, sufficient numbers of well trained and motivated custody staff, a skilful healthcare team including highly skilled prescribers, and a successful prison regime which optimises time out of cell and purposeful activity. These aspirations present significant challenges in the present penal system where resources are limited.

The harm caused by illegal drugs, and in particular Novel Psychoactive Substances (NPS) such as Spice, Monkey Dust and Mamba, has conflagrated an already hugely challenging problem in prisons. Effective drug intervention strategies in prisons to reduce the harm caused by illegal drugs are an essential component of effective security. New forms of NPS, including highly toxic substances such as carfentanyl, create further challenges to the Health and Justice System.

When care is being planned by a clinician and treatment decisions made this process remains individual to the patient and should be patient-centred and in the patient's best interests. As part of care planning the need of the patient and the context of treatment in prison should be carefully evaluated.

The principles for mitigating risk are not complicated but they may incur additional costs. The increased cost of providing services within a secure environment may be appropriate for a healthcare provider to undertake and this should be recognised within healthcare budgets. The involvement of a pharmacist experienced in secure environment practice can optimise risk mitigation and ensure cost-effective use of the most appropriate medication.

Several principles govern the reduction of risk in prescribing a specific medicine. These include the specific medicine, the form of the preparation (liquid, solid, transdermal, orodispersible, injectable, nasal, inhaled, suppository, pessary etc); use of an alternative and the use of an unlicensed medicine. The General Medical Council (GMC) recognises that in certain situations doctors prescribe unlicensed and off-label preparations where good evidence exists as to their benefit, and their use in a particular circumstance can be justified. Local Area Prescribing Committee (APC) and Joint Formulary Guidelines (JFG) which are widely available online offer invaluable support to clinicians in prescribing unlicensed treatments 'off label'. Injectable preparations when administered do not get diverted and they ensure compliance. This benefit has long been recognised in the use of antipsychotic depot treatments. Cases of misappropriation of injecting equipment for illicit drug use are, however, well known in prisons.

The change of preparation from a standard release tablet to a supervised liquid-based medication reduces the risk of diversion. Capsules may cause problems as the medication comes in a form that is readily diverted, the capsule opened, and the powder or granular contents may be injected or snorted. Buprenorphine tablets are commonly crushed and snorted in prisons and in the community.

In the following pages, the most common medications which are misused in prisons are considered, discussed and rated for their suitability or unsuitability for use within a secure environment. There will be circumstances which will override these recommendations in individual cases. However, prison prescribers should be certain and sense check that they are not working in a culture of profligate and inappropriate excessive prescribing, a situation which is commonly encountered in many prisons.

Challenging a patient's requests, demands, wants and needs regarding prescriptions is one of the most difficult aspects of clinical practice. It requires training, experience, communication skills, professional support, teamwork, positive feedback and personal reflection.

This guidance does not deal specifically with the integrated treatment of drug users or the management of palliative care in prisons, however, these chapters have been enhanced in this second edition.

### Traffic light system

The authors have used a traffic light system to evaluate medicines, with regard to the risks associated with prescribing in prisons.

- **Red medicines** are generally considered to be inappropriate for prescribing in prisons as their misuse potential and their potential for harm is considered unacceptable and alternative medications are available. They carry the highest risk if prescribed and they should only be considered where alternatives are not available.
- **Amber medicines** should usually only be considered as a treatment when other choices are inappropriate or have been used unsuccessfully. Even in these circumstances they should be prescribed with caution. Amber medications have a recognised abuse potential and experience from within the prison system supports the assertion that these medications are abused. Their abuse should not be supported but the risk of individual harm is arguably less than for the red category. For a prison population as a whole though, the risk associated with widespread trading may not be reduced and widespread use of amber medications should be considered as inappropriate within a particular prison. In limited circumstances amber medications may be prescribed as first-line treatments but are highlighted as their potential for abuse remains high. For example, the treatment of assisted withdrawal for benzodiazepines, alcohol dependence and opiate dependence are all marked as amber.
- **Green medications** carry lower risk and where possible after assessing individual need and prison factors these medications would generally be a first-choice treatment. To facilitate these medications as first-choice treatments, they may need to be used off-licence or outside of National Institute for Health and Care Excellence (NICE) guidance.

It should be noted, that in balancing the risks of the environment and the risks of a particular medication against the needs of an individual, it may be appropriate to prescribe a medication that is outside of accepted community guidance and practice. It is defensible and appropriate to do this in circumstances where equivalence of care is being sought, having carefully considered and documented this risk evaluation.

Other publications and guidelines use their own traffic light system within the context of that specific project to serve their own specific purpose. Our traffic light system has been carefully considered and is applicable within the prison system. After careful scrutiny it does not compromise other guidelines which may use a different traffic light rating for the same drug as part of a specific pathway, treatment plan or protocol.

This guidance identifies the most problematic drug groups and preparations within those groups. The majority of preparations are described in detail in chapter four of the *British National Formulary (BNF)*. We consider some of the key issues related to these classes of medicines and individual preparations and link these to other national guidelines and evidence to support prescribing decisions.

This guidance is intended for all prescribers and clinicians working within prisons, particularly those with less experience of this specialist area of practice. The guidance will also be of value to primary care prescribers in the community who provide care for patients with addiction and forensic problems, and also to those prescribers in secondary care where, either on an out-patient or in-patient basis, their patients will return to a custodial setting. The guidance does not include every preparation in a class nor should it be regarded as exhaustive in covering every prescribing issue related to the drug groups.

Prescribers should exercise appropriate care and caution when prescribing to women in pregnancy and lactation.

Prescribers should exercise care and caution when prescribing to patients with renal and hepatic impairment. We advise reference to the *BNF* and other prescribing guidelines in all of these situations.

We wish you every success in caring for prisoners and prescribing to them.

### References and additional resources

Royal Pharmaceutical Society. *British National Formulary*. London: British Medical Association and the Royal Pharmaceutical Society, 2011. [bnf.org](http://bnf.org)

UK Prison Population Statistics. [researchbriefings.files.parliament.uk](http://researchbriefings.files.parliament.uk)

GMC. Good Medical Practice. [gmc-uk.org/ethical-guidance](http://gmc-uk.org/ethical-guidance)

Lincoln Prison Riot 2002. [news.bbc.co.uk](http://news.bbc.co.uk)

Royal College of Psychiatrists. Consensus statement on high-dose antipsychotic medication. Approved by Council: May 2014. Council Report CR190. London: Royal College of Psychiatrists, November 2014.

Royal College of Psychiatrists. Consensus statement on use of licensed medicines for unlicensed applications in psychiatric practice (2nd edition). Approved by Council: October 2017. Council Report CR210. London: Royal College of Psychiatrists, December 2017. [rcpsych.ac.uk/improving-care/campaigning-for-better-mental-health-policy/college-reports/use-of-licensed-medicines-for-unlicensed-applications-in-psychiatric-practice-2nd-edition-cr210-dec-2017](http://rcpsych.ac.uk/improving-care/campaigning-for-better-mental-health-policy/college-reports/use-of-licensed-medicines-for-unlicensed-applications-in-psychiatric-practice-2nd-edition-cr210-dec-2017)



# Prescribing within a medicines governance framework

## Key messages

- Royal Pharmaceutical Society (RPS) guidelines published in 2017 underpin the medicines governance framework in prisons.
- Clinical decisions to continue or suspend medicines on admission are a challenge and need to be considered on an individual case basis and not using generic stopping of specific medicines.
- Inappropriate prescribing practice which is evident when reviewing a patient should be skilfully addressed.
- Some medicines cause harm if ceased abruptly or if doses are missed. NICE guidance includes advice on these critical medicines.
- Outcomes from a medicines reconciliation completed within 72 hours of admission should be used to review on-admission medication.
- Prescribers should prescribe according to the in-possession status of the prisoner and in line with the local in-possession policy.
- On release or transfer a seven-day supply of medicines or an FP10 or FP10MDA is recommended to avoid harm from omitted doses.
- When a prisoner is transferred out or released, accurate information about their health and any medicines prescribed should accompany them and be communicated to their community GP, hospital or receiving facility.

## Medicines optimisation

Prescribing is the first step in the medicines optimisation pathway and is followed by access to the medicine, for example via a dispensing pharmacy, and its supply or administration to the patient. There are specific challenges with prescribing in secure environments due to the health needs of people within them, the structural and operational limitations posed by them and the additional risks associated with diversion and abuse of medicines and other illicit products such as psychoactive substances. These challenges result in the need for a robust framework of medicines governance and professional standards for medicines optimisation in health and justice settings.

In 2017, the Royal Pharmaceutical Society (RPS) published **professional standards** for healthcare staff, including prescribers, and custodial partners that describe the basis for optimising medicines use. The standards focus on the patient pathway, from admission to

release or transfer, underpinned by a competent workforce and a multi-professional governance framework.

This chapter briefly describes the important elements from the RPS standards that require direct actions or contributions from prescribers or that inform prescribers about safer prescribing.

### **Continuity of medicines on admission including medicines reconciliation**

One of the common dilemmas faced by prescribers in secure environments is whether to continue medicines that the patient newly arriving into custody claims they are taking. This has to be an individual case decision based on the clinical assessment made during the first few hours post-admission, current health needs that require prompt prescribing versus the risk of omitting or delaying doses, and the validity of the information available to support the medication history.

The decision to continue, delay or cease prescribing of medicines can be informed by:

- **Critical medicines needed:** There are some clinical indications where omission or delays in doses of specific medicines is known to be harmful. In 2010 an NHS patient safety alert highlighted this risk and suggested actions to reduce the risk of harm. The NICE Physical Health for people in prison guidance includes a list of the types of critical medicines that are relevant for people in prison with the recommendation to 'give critical medicines in a timely way to prevent harm from missed or delayed doses'. Healthcare providers should produce a local list of critical medicines that prescribers can use to continue access to these medicines safely.
- **Medicines reconciliation outcomes:** This is completed between the first reception screen and second health assessment, usually within 72 hours of admission or transfer. It is underpinned by NICE guidance, a national clinical template on SystmOne and involves a complete reconciliation of medicines a person is taking using a variety of information sources. The outcomes from the medicines reconciliation provides advice to the prescriber for each medicine about whether the medicine need has been validated and whether there are any discrepancies or omissions with the initial on-admission medicines identified at reception.

### **In-possession medication**

Since 2003, people in prison and other places of secure detention have been encouraged to have their medicines in their possession to enable them to take an active role in managing their healthcare, and for this to continue when they are released. Further information about implementing

in-possession medication can be found in the [NPC Guidance](#). The RPS standards describe the expectations for implementing in-possession which include that the ability for people to have medicines in-possession is underpinned by:

- a** An assessment of the person to establish whether it is safe for them to have medicines in their possession – fully completed on admission/transfer and reviewed during the person’s time in prison as needed.
- b** A list of specific medicines, for example Controlled Drugs, plus other medicines agreed locally, that are restricted and not provided as in-possession medicines, due to their risks of diversion.

A national in-possession template for SystmOne has been designed to enable providers to complete (a) above via a common in-possession risk assessment to meet the standard and implement the recommendations on in-possession in NICE guidance.

It is advised that prescribers in secure environments follow the in-possession policy and procedures and accurately include the in-possession status of all medicines as they prescribe them. It is important that in-possession risk assessments are undertaken in collaboration with the prison.

During their time in custody, a person’s risk of having their medicines in-possession may change or need to be checked or reviewed. For example, if they have abused their medicines, had difficulties adhering to their medicines, or are at risk of self-harm or are subject to an Assessment Care in Custody and Teamwork (ACCT) or checked as part of a routine medication review. In such circumstances where the risk of self-administration of medicines has increased, their in-possession status may need to change. It is equally important to review the in-possession status of a person or specific medicine so that the person can move from supervised consumption status to in-possession status of the medicines as their health or capacity to self-administer their medicines improves.

Prescribers in secure environments should include a review of the in-possession status of a person or the medicines being prescribed when initiating a new medicine or when a change in-possession status is needed and take the possession of medicines into account when reviewing a patient’s medicines.

### **Services and infrastructure support**

Prescribers working in secure environments have access to services, pharmaceutical advice and healthcare provision infrastructure that can support them in prescribing safely and in partnership with a multidisciplinary team.

- **Medicines management committees (MMC) and medicines policies:** The healthcare provider hosts a multidisciplinary medicines management committee which develops and oversees the implementation of the provider's medicines policy and formularies, and overall governance of medicines optimisation. The committee is usually co-ordinated by the lead pharmacist for the secure environment. Prescribers will need either to be directly part of the MMC or make sure they are informed about and use any policies or procedures that affect prescribing.
- **Clinical pharmacy services:** Many secure environments have on-site pharmacists and pharmacy technicians who provide support to patients and healthcare staff. The pharmacy team deliver a range of services such as patient-facing services including medication reconciliation and review, managing repeat prescribing, and services that directly support the healthcare team in clinical decision-making such as formulary review, therapeutic drug monitoring and complex polypharmacy cases.
- **Clinical IT system:** All secure environments use the Health and Justice clinical IT system (HJIS). As people move between secure environments, their clinical record moves with them. The system is used to generate prescriptions (which are in a customised prescription format unique to health and justice) and to record all medicines supplied or administered on an electronic medication chart. It is essential that prescribers use the functions and record clear information about medicines they prescribe on the system consistently and in line with local procedures to avoid risks for error at the point of medicines supply or with future care. Where a visiting prescriber comes onto the site and provides patient consultations, the prescriber should prescribe medicines directly onto the system themselves at the time of the consultation or shortly afterwards and not request that another prescriber issue the prescription.
- **Multidisciplinary collaboration:** Secure environments are unique in that there are many specialist clinicians that work side by side with general healthcare staff where in the community, these specialists work within their own sites. Key examples include mental health teams, substance misuse teams, dentists, physiotherapists and optometrists, and in some sites, pain specialists and Hepatitis C/HIV specialists. This creates the opportunity for multidisciplinary support and case management, especially where people in prison often have complex comorbidities that cut across several specialist and generalist disciplines. Prescribers can easily link up with relevant colleagues to inform prescribing decisions and share care that supports the patient in optimising their medicines. It is crucial that prescribers

within the prison are familiar with this guidance and the importance of safe and appropriate prescribing. It is paramount that prescribers take responsibility for prescribing treatment combinations which they recommend.

- **Psychiatrists:** This is particularly relevant to psychiatrists who should take responsibility to ensure that their treatment plans are formulated in a multidisciplinary way, that they are appropriate and in agreement with GP prescribers who may be asked to continue a prescription. It is important that any prescriber who initiates a prescription is prepared to take ownership of the prescribing if asked to do so. Inappropriate delegated prescribing of medication which may be misused is not acceptable practice.

### Continuity of medicines on transfer and release

While inside prison, there are opportunities to review the clinical suitability of medicines that a patient has been prescribed in the community. There are also opportunities to ensure that medications are taken appropriately under supervision and to observe and challenge habits of misuse and diversion of prescribed drugs. Working with multidisciplinary support, it may be possible to explore beliefs that a patient holds about particular medicines and to encourage a multifaceted approach to symptom management, therefore reducing inappropriate or excessive prescribing.

When a prisoner is transferred out of the prison to another setting accurate information about their health and any medicines prescribed should accompany them. A referral letter will usually accompany them to hospital and a PER (Prisoner Escort Record) will be used to communicate with other establishments within the criminal justice system.

It is especially important to ensure timely communication of information on release of a prisoner back into the community. Community teams such as general practice, mental health teams and substance misuse services should be provided with contemporaneous summaries of diagnoses and treatment including prescribing. This is achieved by sharing good quality, clearly formatted discharge summaries, preferably before a prisoner is released.

A national template for release planning and a template for use as a checklist at the point of transfer or release are available on HJIS to support this continuity of care including medicines. Current means of communication exchange are by the patient or by fax. In future, however, there are plans to ensure accessibility of the patient's prison-based electronic health record by the registered community general practitioner.

When prisoners are released or transferred to another prison, seven days of medication including controlled drugs (CDs) should be provided (except for methadone and buprenorphine on transfer). This means prescribers may need to prescribe a supply of 'to take away' (TTA) medication to meet this need. Where the release is unplanned (e.g. to court) and TTA medicines cannot be supplied before the prisoner leaves, prescribers will be able to write an FP10 or FP10MDA community prescription which can be given to the prisoner, so they can have the medicines supplied at a community pharmacy.

### References

SystemOne. [tpp-uk.com](http://tpp-uk.com)

Professional Standards for optimising medicines for people in secure environments. [Royal Pharmaceutical Society 2017](#)

Medication in-possession. A guide to improving practice in secure environments. [Liverpool, National Prescribing Centre, 2005](#)

Reducing harm from omitted and delayed medicines in hospital. [NPSA 2010](#)

Medicines optimisation: the safe and effective use of medicines to enable the best possible outcomes. [NICE 2015](#)

NICE Physical Health for people in prison guidance [NG57 2016](#)

## Key messages

- Assessment of insomnia is important to identify duration, type, cause, effects on functioning and risk of self-harm.
- Sleep diaries and sleep watches can be used to identify and confirm disrupted sleep patterns.
- Initial management of insomnia is non-pharmacological.
- Sleep hygiene alone is effective in 30% of primary insomnia.
- Relaxation and exercise promote sleep.
- Night sedation is frequently requested. Prescribing should be limited to short courses for periods of acute distress.
- Sedating antihistamines are first-line hypnotic choice.
- Benzodiazepines, amitriptyline and low-dose sedating antidepressants should not be prescribed for insomnia in prison.
- Insomnia is often a presenting sign in mental illness.

## Assessing insomnia

Insomnia is a common problem both in the community and in prison. Studies have found a prevalence of 44% in men and 72% in women prisoners. Insomnia is a common reason to request an appointment with a prison GP.

Prescription requests for hypnotic medicines should be carefully evaluated. Prisons often have their own guidelines about prescribing night sedation for short periods of time.

A thorough assessment of insomnia is important as this may establish whether the subjective disruption to sleep is in fact within normal clinical expectations and whether or not there is an underlying cause which may require treatment. A fundamental clinical skill in managing insomnia is addressing patient expectation and providing for the patient the context of their sleep problem and describing what a realistic expectation might be.

Establishing the type of insomnia is important. Differentiating between initial insomnia and early morning waking may be helpful. Differentiating between acute insomnia (at least three nights per week sleep disruption for less than three months) and chronic insomnia (more than three months) is helpful. Evaluating the impact on daytime functioning as well as daytime sleeping or napping is also helpful.

Prescribed treatment is not required if daytime functioning is unimpaired. A sleep diary can be a useful tool in identifying disrupted patterns of sleep and it can facilitate delivery of individually tailored advice. In addition, in prison the GP can request a sleep watch by which wing officers can objectively evaluate the prisoner's sleep pattern. Requesting a sleep watch can be of great help in managing prisoners who make forceful demands for hypnotic medication.

Insomnia may be precipitated or exacerbated by the loss of autonomy and a sedentary lifestyle in the custodial setting. Cell sharing may affect sleep. Anxiety and worry related to the justice process including pending court cases, sentencing, bullying, remorse, psychological trauma and loss of social connections may all affect sleep. Sleep problems may be a primary disorder or may be secondary to a physical or medical condition causing breathlessness or pain. Mental illness and substance misuse are widely recognised as causing sleep disruption.

Patients withdrawing from illicit drugs including cannabis, opiates, alcohol and benzodiazepines commonly experience insomnia.

Insomnia may increase the risk of self-harm and suicide by negatively affecting mood, thoughts and behaviour, independently of other risk factors impacting on mental health during the early time in custody.

The relationship between insomnia and depression is well recognised particularly when presented as early morning waking. Clinicians should always consider this sleep pattern when evaluating insomnia.

### **Managing insomnia**

The initial approach to management of insomnia should be non-pharmacological. Advice should be given about the sleep environment, although it can be challenging to meet the recommendations in prison (quiet, dark, appropriate temperature, comfortable mattress, pillow and bedding.) Supportive sleep hygiene strategies include avoiding caffeine and constructing a routine using music, reading and a milky drink before getting into bed at a regular time.

Good practice suggests that prisoners should have access to additional fluids and food at night in the early stages of withdrawal and the recovery period (usually the first 14 days): a munchie pack (bread and jam or savoury spread) and hot milky drink sachets to help promote sleep. In addition, a free in-cell TV or radio should be provided.

Cognitive behavioural therapy for insomnia (CBT-I) is more effective than any drug therapy in the management of chronic insomnia. CBT-I combines sleep hygiene, stimulus control, sleep restriction, relaxation training and cognitive restructuring. Although some of these elements can be delivered in the prison setting, restrictions imposed by the regime and cell sharing make others difficult to deliver.



Sleep hygiene alone is effective in 30% of people with primary insomnia and useful patient leaflets can be found on the NHS Choices and Patient UK websites. Stimulus control and sleep restriction are difficult to achieve in the prison environment and any advice on sleep restriction should be tailored to the individual patient to avoid exacerbating mental health problems or epilepsy. Relaxation through access to in-cell radio and TV can be complemented by training in meditative movement, such as Yoga and Tai Chi, and mindfulness-based cognitive restructuring.

Exercise is beneficial for promoting sleep. Evidence now shows that exercise within the four hours before bed is not detrimental to sleep. However, morning exercise produces the best sleep and aerobic exercise is better than resistance-based exercise. While there may be restrictions on gym access due to wing regimes, court attendance and staff shortages, in-cell exercises can be encouraged. Feedback received through monitoring can improve health behaviours including sleep, however, the practicality of providing fitness and sleep trackers in prisons may be challenging.

Requests for night sedation are frequent in prison, particularly in patients with substance misuse problems. The *BNF* states that hypnotics 'should be reserved for short courses in the acutely distressed'. Tolerance to the effects of many hypnotics develops within 3–14 days of continuous use and long-term efficacy cannot be assured. A major drawback of long-term use is that withdrawal can cause rebound insomnia and a withdrawal syndrome. Prescribing for insomnia should therefore be cautious and avoided if possible in chronic insomnia. It may be appropriate to prescribe for short periods if sleep is impaired due to significant life stresses and daytime functioning is affected.

Scenarios may include:

- before a court appearance
- on receipt of a long sentence
- bereavement
- imminent release after completing a long sentence.

It may also be appropriate to prescribe hypnotics for a short period of time at the end of an opioid reduction regime.

### Choice of drug

- **Sedating antihistamines**, for example promethazine or diphenhydramine which is available over the counter (OTC) in community pharmacies, are recommended as first-line hypnotics in the prison setting as they are less likely to be diverted than benzodiazepines or 'Z' drugs. Side effects include daytime sedation and anticholinergic effects such as dry mouth and constipation.

Tolerance to the hypnotic effect may occur within 14 days and prescribing short courses with breaks is recommended (for example seven days with a two-week break or three days out of every seven days.) These restrictions on prescribing also limit the circulation of medication that may be misused.

- **Z drugs** act on GABA receptors and are addictive. They are not recommended as first-line hypnotics due to their greater risk of diversion and illicit use. If used, lower doses are recommended in women, the elderly and patients with liver impairment. If one 'Z' drug is ineffective, there is no indication to try another. They are popular among drug users.
- **Slow-release melatonin** is licensed for short-term use (<13 weeks) in insomnia in patients over 55. It reduces time to onset of sleep but is rarely prescribed in prison.
- **Benzodiazepines** are not recommended for the treatment of insomnia in prisons since there is rapid tolerance to the hypnotic effect and addictive potential; they are prone to abuse and can cause daytime sleepiness. There is also a possible link reported between long-term use and Alzheimer's disease. They are popular among drug users.
- **Sedating antidepressants** such as trazodone and mirtazapine are not licensed or recommended solely for the treatment of insomnia.
- If **low dose amitriptyline** is used to treat neuropathic pain, it may improve insomnia. However, it should be used with extreme caution due to the risk of fatal toxicity in overdose and should not be prescribed solely for hypnotic use in prisons.

**Recommended drugs**

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Promethazine</b>	25–50mg	First-line in prisons – less potential for diversion. Sedation lasts up to 12 hours. Can cause headache and other anticholinergic side effects. Hypnotic effect lasts only a few days.
	<b>Diphenhydramine (Nytol)</b>	50mg	First-line in prisons – less potential for diversion. See promethazine.
	<b>Z drugs:</b> <b>Zopiclone</b>  <b>Zolpidem</b>  <b>Zaleplon</b>	3.75mg* 7.5mg  5mg* 10mg  5mg* 10mg	Second-line due to greater risk of diversion and illicit use. * Lower dose suggested for women, elderly and liver impairment. Do not operate machinery for 8h after taking. If prescribed, clinical indication and planned (short) duration should be documented in patient notes.
	<b>Melatonin</b>	2mg	MR formulation licensed for short-term use (up to 13 weeks) in 55 years and older. Orodispersible, oral suspension and oral solution available.
	<b>Temazepam</b>	10–20mg	Not recommended within a prison environment. Risk of ataxia and falls, amnesia, confusion (especially in elderly). Risk of dependence, drowsiness, muscle weakness, paradoxical increased aggression. If prescribed, clinical indication and planned (short) duration should be documented in patient notes.
	<b>Nitrazepam</b>	5–10mg (2.5–5mg elderly)	Not recommended within a prison environment. See temazepam.
	<b>Amitriptyline</b>	10mg	Not recommended within a prison environment. If used to treat neuropathic pain, insomnia may improve but due to the risk of toxicity in overdose, it is not recommended as a treatment for insomnia in prison.

## References

- Elger BS. Prevalence, types and possible causes of insomnia in a Swiss remand prison. *Eur J Epidemiol.* 2004; 19(7): 665–77.
- Harner HM, *et al.* Sleep quality and risk for sleep apnea in incarcerated women. *Nurs Res.* 2014 May–Jun; 63(3): 158–169.
- National Institute for Clinical Excellence (2004) Guidance on the use of zaleplon, zolpidem and zopiclone for the short-term management of insomnia. Technology Appraisal guidance (TA77).  
[nice.org.uk/guidance/ta77](http://nice.org.uk/guidance/ta77)
- Department of Health. Clinical Management of Drug Dependence in the Adult Prison Setting including psychosocial treatment as a core part. London: Department of Health, 2006.
- National Institute for Health and Care Excellence. *British National Formulary.* [bnf.nice.org.uk/](http://bnf.nice.org.uk/)
- Falloon K, *et al.* The assessment and management of insomnia in primary care. *BMJ* 2011;342:d2899. [bmj.com/content/342/bmj.d2899](http://bmj.com/content/342/bmj.d2899)
- Winkelman J. Insomnia Disorder. *N Engl J Med* 2015; 373: 1437–1444 October 8, 2015. [nejm.org/doi/full/10.1056/NEJMcp1412740](http://nejm.org/doi/full/10.1056/NEJMcp1412740)
- Kay-Stacey M, *et al.* Advances in the management of chronic insomnia. *BMJ* 2016;353:i2123. [bmj.com/content/354/bmj.i2123](http://bmj.com/content/354/bmj.i2123)
- National Institute for Health and Care Excellence. Insomnia. Clinical Knowledge Summaries (revised April 2015). [cks.nice.org.uk/insomnia](http://cks.nice.org.uk/insomnia)
- Kishi T, *et al.* Suvorexant for Primary Insomnia: A Systematic Review and Meta-Analysis of Randomized Placebo-Controlled Trials. *PLoS One.* 2015 Aug 28;10(8):e0136910. [ncbi.nlm.nih.gov/pubmed/26317363](http://ncbi.nlm.nih.gov/pubmed/26317363)
- UpToDate. Bonnet MH, *et al.* Treatment of Insomnia in Adults. [uptodate.com/contents/treatment-of-insomnia-in-adults](http://uptodate.com/contents/treatment-of-insomnia-in-adults)
- Specialist Pharmacy Services. Suvorexant. (updated 11 January 2017). [sps.nhs.uk/medicines/suvorexant/](http://sps.nhs.uk/medicines/suvorexant/)
- Gehrman P. What is insomnia? – ICD-10 diagnoses Primary vs. Secondary insomnia. [sleepsociety.org.uk/wp-content/uploads/2015/12/Cognitive-Behavioural-and-Chronotherapeutic-Interventions-in-Insomnia.pdf](http://sleepsociety.org.uk/wp-content/uploads/2015/12/Cognitive-Behavioural-and-Chronotherapeutic-Interventions-in-Insomnia.pdf)
- NOMS. PSI 45/2010 Integrated Drugs Treatment System (archived).
- National Institute for Health and Care Excellence. *British National Formulary.* [bnf.nice.org.uk/](http://bnf.nice.org.uk/)
- NHS Choices. Insomnia – treatment. [nhs.uk/live-well/sleep-and-tiredness/](http://nhs.uk/live-well/sleep-and-tiredness/)

Patient UK. Insomnia (poor sleep). [patient.info/health/insomnia-poor-sleep](https://patient.info/health/insomnia-poor-sleep)

Everitt H, *et al.* Antidepressants for insomnia in adults. Cochrane Database of Systematic Reviews 2018, Issue 5. Art. No.: CD010753. DOI: 10.1002/14651858.CD010753.pub2.

# Depression

## Key messages

- Screening for depression and risk of self-harm and suicide should take place at the first-stage health assessment.
- A joint approach between custody and healthcare staff is recommended to manage the risk of self-harm and suicide, if necessary through the Assessment, Care in Custody and Teamwork (ACCT) process.
- NICE recommends a stepped-care approach to depression, with antidepressant medication usually only prescribed for moderate or severe depression in combination with psychological interventions.
- Adults under the age of 30 years are particularly at risk of self-harm and suicidal thoughts when starting antidepressants. They should be monitored closely.
- SSRIs are first-line antidepressants because they are better tolerated and safer in overdose.
- Antidepressants with sedating or euphoric effects are at greater risk of abuse and diversion in prison and may require supervised consumption.
- Orodispersible formulations are recommended where possible since they are less easily concealed and abused or diverted.

## Screening for depression

The diagnosis and successful treatment of depression in prisons is very important. Screening for depression in prison is mandated in the first-stage health assessment recommended in the NICE guidance: physical health of people in prison and mental health of adults in contact with the criminal justice system.

The assessment includes questions covering identified mental health problems, self-harm and suicide risk. If depression is suspected by the responses to the first-stage health assessment, or by history, presentation or behaviour at any point in the care pathway, further mental health assessment is recommended. This should include severity, degree of functional impairment, duration of the symptoms of depression, risk of suicide, self-harm and harm to others. It should take into account any comorbid mental health or chronic physical disorders, learning disabilities and communication difficulties. The use of standardised assessment

tools is recommended, including the Correctional Mental Health Screen for Men (CMHS-M) or Women (CMHS-W). In primary care the PHQ 9 is widely used.

## Prescribing for depression

Prescribing rates for psychotropic medication are four times higher in men and six times higher in women in prisons than in the community.

Antidepressant medication should be prescribed in line with the stepped-care model. Stepped-care utilises the least intrusive, most effective interventions. Antidepressants should therefore only be used in addition to psychological treatment, principally for moderate or severe depression. Medication should only be prescribed in mild depression or sub-threshold depressive symptoms if:

- mild depression complicates the care of a chronic physical health problem
- there is a history of moderate or severe depression
- sub-threshold depressive symptoms persist for at least two years
- symptoms persist after other interventions have been tried.

The choice of antidepressant will be influenced by possible side effects and discontinuation symptoms, potential interactions with other medications, effects on coexistent chronic physical illness and response to any previous antidepressants taken. In addition, the safety profile and abuse potential of specific drugs, as well as the risk profile of individual patients will affect prescribing decisions in the secure environment. Patients under the age of 30 and those at increased risk of suicide require particular care.

Antidepressants with either sedating or euphoric side effects have greater potential for abuse and may require compliance monitoring or supervised administration. Younger adults and patients with a history of suicidal behaviour will require close monitoring particularly during the initial weeks of treatment for depression, since depression in younger age, the first four weeks in prison and the first four weeks of antidepressant treatment are all independent risk factors in attempted and completed suicide. A joint approach between custody and healthcare staff, if necessary through the ACCT process is considered best practice. However, predicting risk and suicide in prison and in the community is notoriously difficult.

### Issues to be aware of

When prescribing in a secure environment, clinicians should be aware of the following issues:

There should be continuity of medicines on transfer between community and prison, on transit from another custodial setting or on transfer from prison to community. This will require access to relevant information from a person's medical records and provision of their medicines. Delay or omission of doses of critical medicines (including medicine prescribed for psychoses or substance misuse) should be avoided but this risk should be balanced against prescribing medicine at risk of abuse without confirmation through the medicines reconciliation process.

If a prescriber is concerned about the safety or appropriateness of a corroborated prescription, it is entirely reasonable for the prescriber to question the prescription and re-evaluate the treatment plan, ensuring that coherent support and safety measures are in place. It is not appropriate for prescribers to continue 'sub-optimal' or unsafe prescriptions.

Following medicines reconciliation, a medication review may be indicated to assess clinical need and the risk of diversion or abuse of any medicines prescribed. This includes those for sleep problems or the management of chronic pain.

Administration times for supervised medication will be limited by the prison regime and availability of prison and healthcare staff. Timings of antidepressant doses should therefore be prescribed to coincide with these timings, and prisoners should be advised that they may be required to take medication with sedating side effects at earlier times than when in the community. Where practicable and indicated, sedative antidepressants should be dispensed in the evening.

There is a risk that medicines kept in-possession may be abused by the individual for whom they are prescribed, diverted to others or taken in overdose. In-possession policies for medicines at risk of abuse should be decided at a local level in conjunction with the medicines management committee and referencing the appropriate (extant) PSI, and allowing for exceptions on a case-by-case basis. In addition to the prison in-possession policy for specific medicines, each individual prisoner should have a risk assessment carried out to establish their suitability for having medicines in their possession. Those at greater risk of self-harm will require supervised administration.

Prescription of orodispersible formulations reduces the risk of concealment for diversion or stockpiling of medicines taken under supervision and should be considered.



Online NICE *BNF* states:

“There is little to choose between the different classes of antidepressant drugs in terms of efficacy, so choice should be based on the individual patient’s requirements, including the presence of concomitant disease, existing therapy, suicide risk, and previous response to antidepressant therapy. Selective Serotonin Inhibitors (SSRIs) are better tolerated and are safer in overdose than other classes of antidepressants and should be considered first-line for treating depression.”

Patients should be monitored for response to treatment every two weeks after starting antidepressant medication and more frequently in those at higher risk, such as young adults and those with a history of suicidal behaviour. If there is a failure to respond to treatment, an increase in dose or switch to a different antidepressant can be considered (see table below for suggested alternatives.) Due to their toxicity in overdose, tricyclic antidepressants should not generally be used in the prison setting. Irreversible monoamine-oxidase inhibitors (MAOIs) should only be prescribed by specialists. MAOIs have interactions with sympathomimetic-type drugs.

Adjunctive treatment with either a second antidepressant or a different class of psychotropic medicine should usually be initiated by a psychiatrist or in liaison with a psychiatrist.

Hyponatraemia is uncommon and can arise with all antidepressants, including SSRIs, and may result in drowsiness, confusion, convulsions and falls in elderly patients. This should be taken into consideration when prescribing for prisoners over 65 years of age.

Consider prescribing gastroprotection with SSRIs in patients who are older and those taking non-steroidal anti-inflammatory drugs (NSAIDs) or aspirin, due to the risk of gastrointestinal bleeding.

There is a risk of serotonin syndrome when SSRIs are prescribed, particularly if taken with other drugs (illicit or prescribed) that increase the synaptic serotonin levels. Serotonin syndrome has three classic features: mental state changes, autonomic hyperactivity and neuromuscular abnormalities. Further details about serotonin syndrome can be found in the **Substance misuse** chapter. It is also important to note that tramadol possesses SNRI-like properties and should not be co-prescribed with either SSRIs or SNRIs.

SSRIs can have favourable effects on glycaemic control. Therefore, they are the most suitable class of antidepressant for use in patients with diabetes and depression.

Beware of patients with opioid addiction problems asking for mirtazapine (Zispin) which is only licensed for the treatment of major depression. It is likely that they intend to take it for its hypnotic properties.

NHS England has published a [briefing about prescribing of mental health medicines](#) to support a multidisciplinary approach to antidepressant prescribing.

There is an evidence base for co-prescribing of two antidepressants from different classes in resistant depression. The opinion of a psychiatrist should be sought before initiating these combinations in prison.

## Recommended drugs

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Fluoxetine</b>	20–60mg (max usually 40mg in the elderly)	<p>First-line in depression. Low potential for abuse.</p> <p>Caution: epilepsy, cardiac disease, diabetes mellitus, h/o bleeding disorder.</p> <p>Less suitable than sertraline or citalopram if chronic physical health problems (more drug interactions).</p> <p>Avoid in women on tamoxifen.</p> <p>Other indications: Bulimia nervosa, OCD.</p> <p>Often prescribed for young adults (&lt;30yrs) who are at greater risk of suicidal ideation.</p> <p>Possible increase in suicidal ideation after initiation therefore close monitoring required at start of treatment.</p> <p>Euphoria a recognised side effect but few reports of significant abuse.</p> <p>Available as: dispersible tablet, oral solution.</p> <p>Potentially toxic dose: Adults who have ingested 6mg/kg should be referred to hospital.</p>
	<b>Sertraline</b>	50–200mg	<p>First-line in depression. Low potential for abuse. Drug of choice post-MI and in epilepsy. Suitable if chronic physical health problem.</p> <p>Caution: see fluoxetine.</p> <p>Other indications: GAD, OCD, PTSD.</p> <p>Available as: oral solution.</p> <p>Potentially toxic dose: Adults who have ingested 7mg/kg should be referred to hospital.</p>
	<b>Citalopram</b>	20–40mg (<65 years) 10–20mg (>65 years, risk of liver impairment)  Oral solution:* 16–32mg (8–16mg in the elderly)	<p>First-line in depression. Low potential for abuse. Caution: see fluoxetine.</p> <p>Suitable if chronic physical health problem <i>but</i> dose-dependent QT lengthening: Avoid if prescribed methadone or other QT lengthening drugs.</p> <p>Other indications: Panic disorder.</p> <p>Euphoria a recognised side effect but no reports of significant abuse.</p> <p>Available as: oral solution.*</p> <p>Potentially toxic dose: More cardiotoxic than other commonly-used SSRIs. Death reported after 2880mg. Adults who have ingested 2mg/kg should be referred to hospital.</p>

# Depression

## Recommended drugs contd

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Escitalopram</b>	10–20mg (<65 years) 5-10mg (>65 years, risk of liver impairment)	Second-line in depression. Caution: see fluoxetine. Dose-dependent QT lengthening: Avoid if prescribed methadone or other QT lengthening drugs. Other indications: OCD, social anxiety disorder, GAD, panic disorder. Available as: oral drops. Potentially toxic dose: Adults who have ingested 1mg/kg should be referred to hospital.
	<b>Paroxetine</b>	20–50mg (40mg max in the elderly)	Second-line in major depression – low potential for abuse. Caution: see fluoxetine. Less suitable than sertraline or citalopram if chronic physical health problems (more drug interactions). Avoid in women on tamoxifen. More risk of discontinuation syndrome than other SSRIs. Other indications: OCD, Social anxiety disorder, PTSD, GAD, Panic disorder. Available as: oral solution and suspension. Symptoms of toxicity may be delayed as absorption is slow. Ingestion of 10–1000mg have resulted in only minor symptoms. Potentially toxic dose: Adults who have ingested 3mg/kg should be referred to hospital.
	<b>Trazodone</b>	150–300mg (up to 600mg under hospital supervision)	Second-line in depression. May be co-prescribed with triptans for migraine and with NSAIDs, aspirin, MAOB inhibitors (e.g. selegiline). Causes sedation therefore diversion and trading likely. <i>Not to be prescribed as a sleeping tablet.</i> Available as: oral solution. Potentially toxic dose: Doses of 1.5–3 g have caused significant cardiovascular toxicity. Convulsions and respiratory arrest also reported. Death has been recorded after ingestion of 4.5g. Adults who have ingested 15mg/kg should be referred to hospital.

## Recommended drugs contd

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Venlafaxine</b>	75–375mg	<p>Second-line in major depression. Measure BP before and during treatment. Stop if hypertension develops. Avoid if uncontrolled hypertension, risk of arrhythmia, recent MI.</p> <p>Specialist supervision for doses &gt;300mg. Other indications: Anxiety, GAD (max dose 75mg).</p> <p>Seizures and death can occur in overdose (seizures have been reported in doses as low as 375mg* but more common if &gt;1.5g taken. Death has occurred with 8.4g.)</p> <p>Available as: oral solution and suspension. Potentially toxic dose: Adults who have ingested 7mg/kg should be referred to hospital.</p>
	<b>Mirtazapine</b>	15–45mg	<p>Second or third-line in major depression <i>only</i>. Suitable alternative to SSRI in CHD if SSRI cannot be used. May be co-prescribed with triptans for migraine. NSAIDs, aspirin, warfarin or heparin.</p> <p>Likely faster onset action than SSRIs. Causes sedation therefore diversion and trading likely (widely reported in prisons). <i>Not to be prescribed as a sleeping tablet.</i></p> <p>Available as: orodispersible tablet or oral solution.</p> <p>Potentially toxic dose: Less toxic in overdose than other antidepressants. Adults who have ingested 5mg/kg should be referred to hospital.</p>
	<b>Amitriptyline</b>	75–200mg 30–200mg (in the elderly)	<p><i>BNF does not recommend as antidepressant due to risk of fatal overdose (highly cardiotoxic).</i> Patients should be offered alternative treatment.</p> <p>Other indications: Consider lower doses in abdominal pain (unresponsive to laxatives, antispasmodics or loperamide – up to 30mg), neuropathic pain (unlicensed) or migraine prophylaxis (unlicensed) (up to 75mg).</p> <p>Available as: oral solution.</p> <p>Potentially toxic dose: Adults who have ingested 3mg/kg should be referred to hospital.</p>

## Recommended drugs contd

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Dosulepin</b>	75–150mg 50–150mg (elderly) Max 225mg in hospital use	<i>BNF does not recommend as antidepressant due to risk of fatal overdose (highly cardiotoxic).</i> (initiated only by specialist). Patients should be offered alternative treatment. Available as: oral solution and suspension. Potentially toxic dose: Dosulepin is more toxic than other TCAs (death from 2–3g). Adults who have ingested 3mg/kg should be referred to hospital.

### References

Marttunen MJ, Henriksson MM, Isometsä ET, Heikkinen ME, Aro HM, Lönnqvist JK. Completed suicide among adolescents with no diagnosable psychiatric disorder. *Adolescence* 1998;33(131): 669–81 (Fall). [ncbi.nlm.nih.gov/pubmed/9831884](http://ncbi.nlm.nih.gov/pubmed/9831884)

Stone M *et al.* Risk of suicidality in clinical trials of antidepressants in adults: analysis of proprietary data submitted to US Food and Drug Administration. *BMJ* 2009;339:b2880. [bmj.com/content/339/bmj.b2880](http://bmj.com/content/339/bmj.b2880)

Hassan L, Frisher M, Senior J, Tully M, Webb R, While *et al.* A cross-sectional prevalence survey of psychotropic medication prescribing patterns in prisons in England. *Health Serv Deliv Res* 2014;2(33). [njl-admin.nihr.ac.uk/document/download/2003147](http://njl-admin.nihr.ac.uk/document/download/2003147)

MHRA. Citalopram and escitalopram: QT interval prolongation. Drug Safety Update Vol 5 Issue 5, Dec 2011: A1 [gov.uk/drug-safety-update/citalopram-and-escitalopram-qt-interval-prolongation](http://gov.uk/drug-safety-update/citalopram-and-escitalopram-qt-interval-prolongation)

MHRA. Tamoxifen for breast cancer. Drug Safety Update Nov 2010 volume 4, issue 4: A1. [gov.uk/drug-safety-update/tamoxifen-for-breast-cancer](http://gov.uk/drug-safety-update/tamoxifen-for-breast-cancer)

Castro VM *et al.* QT interval and antidepressant use: a cross sectional study of electronic health records. *BMJ* 2013;346:f288. [bmj.com/content/346/bmj.f288](http://bmj.com/content/346/bmj.f288)

Coupland C *et al.* Antidepressant use and risk of cardiovascular outcomes in people aged 20 to 64: cohort study using primary care database. *BMJ* 2016;352:i1350. [bmj.com/content/352/bmj.i1350](http://bmj.com/content/352/bmj.i1350)

Coupland C et al. Antidepressant use and risk of adverse outcomes in older people: population-based cohort study. *BMJ* 2011;343:d4551. [bmj.com/content/343/bmj.d4551](http://bmj.com/content/343/bmj.d4551)

GP-Update. Depression: antidepressants. [gp-update.co.uk/files/docs/Depression-\\_antidepressants.pdf](http://gp-update.co.uk/files/docs/Depression-_antidepressants.pdf)

Deuschle M. Effects of antidepressants on glucose metabolism and diabetes mellitus type 2 in adults. *Curr Opin Psychiatry*. 2013 Jan;26(1):60-5. [ncbi.nlm.nih.gov/pubmed/23187087](http://ncbi.nlm.nih.gov/pubmed/23187087)

National Institute for Health and Care Excellence. *British National Formulary*. [bnf.nice.org.uk/](http://bnf.nice.org.uk/)

National Poisons Information Service. Toxbase. The primary clinical toxicology database of the National Poisons Information Service. [toxbase.org](http://toxbase.org)

Trivedi MH et al. Medication augmentation after the failure of SSRIs for depression. *N Engl J Med* 2006;354: 1243-52. [nejm.org/doi/full/10.1056/NEJMoa052964](http://nejm.org/doi/full/10.1056/NEJMoa052964)

Patient Health Questionnaire (PHQ-9). [patient.info/doctor/patient-health-questionnaire-phq-9](http://patient.info/doctor/patient-health-questionnaire-phq-9)

Hospital Anxiety Depression Scale (HADS). <https://bit.ly/2SsUlxy>

GAD-7 Questionnaire. [patient.co.uk/doctor/Generalised-Anxiety-Disorder-Assessment-\(GAD-7\).htm](http://patient.co.uk/doctor/Generalised-Anxiety-Disorder-Assessment-(GAD-7).htm)

Correctional Mental Health Screen for Men (CMHS-M). [mha.ohio.gov/Portals/0/assets/Treatment/Criminal%20Justice/Steppingup/Correctional-Mental-Health-Screen-for-Men-CMHS-M.pdf](http://mha.ohio.gov/Portals/0/assets/Treatment/Criminal%20Justice/Steppingup/Correctional-Mental-Health-Screen-for-Men-CMHS-M.pdf)

Martin et al. Mental health screening tools in correctional institutions: a systematic review. *BMC Psychiatry* 2013,13:275 [biomedcentral.com/1471-244X/13/275](http://biomedcentral.com/1471-244X/13/275)

National Institute for Health and Clinical Excellence (2009) Depression in adults: recognition and management. Clinical guideline [CG90] [nice.org.uk/nicemedia/live/12329/45896/45896.pdf](http://nice.org.uk/nicemedia/live/12329/45896/45896.pdf)

National Institute for Health and Clinical Excellence (2005) Depression in children and young people: identification and management. Clinical guideline [CG28] [nice.org.uk/guidance/cg28](http://nice.org.uk/guidance/cg28)

National Institute for Health and Clinical Excellence (2009) Depression in adults with a chronic physical health problem: recognition and management. Clinical guideline [CG91] [nice.org.uk/guidance/cg91](http://nice.org.uk/guidance/cg91)

National Institute for Health and Care Excellence (2017) Mental health of adults in contact with the criminal justice system. NICE guideline (NG66) [nice.org.uk/guidance/ng66](http://nice.org.uk/guidance/ng66)

National Institute for Health and Care Excellence (2016) Physical health of people in prison. NICE guideline (NG57) [nice.org.uk/guidance/ng57](https://www.nice.org.uk/guidance/ng57)

National Institute for Health and Care Excellence (2017) Health of people in the criminal justice system pathway. [pathways.nice.org.uk/pathways/health-of-people-in-the-criminal-justice-system](https://pathways.nice.org.uk/pathways/health-of-people-in-the-criminal-justice-system)

National Institute for Health and Care Excellence (2017) Depression pathway. [pathways.nice.org.uk/pathways/depression](https://pathways.nice.org.uk/pathways/depression)

Taylor, David, Carol Paton, Shitij Kapur. *The Maudsley Prescribing Guidelines in Psychiatry*, 12th Edition. London: Wiley-Blackwell, 2015.

BAP guidelines on depressive illness Cleare A et al. *Journal of Psychopharmacology* 2015, Vol. 29(5) 459–525.

Prison Service Instructions. [justice.gov.uk/offenders/psis](https://www.justice.gov.uk/offenders/psis)



# Substance use and misuse

## Key messages

- Screening for the use and misuse of alcohol, illicit and prescribed drugs should take place at the first-stage health assessment.
- Management of immediate clinical need and self-harm and suicide risk should be initiated in Reception.
- Safe, effective, integrated care requires good communication between community, prison and healthcare teams from the point of entry into prison through to transfer or release back into the community.
- Evidence-based psychosocial and pharmacological interventions should be tailored to meet individual needs and delivered by appropriately trained staff.
- Methadone is the first-line Opioid Substitution Therapy (OST) recommended unless the prisoner is already stabilised on buprenorphine.
- If prisoners develop substance misuse-related problems while in prison, they should be assessed and receive integrated care to meet their needs.
- Serotonin syndrome is a potentially life-threatening reaction that should be considered in people who misuse amphetamine-type substances and those prescribed drugs that increase serotonin.
- Avoid prescribing addictive medication or medication which can be misused, other than appropriate opioid substitution therapy and alcohol assisted withdrawal (detoxification) therapy, to patients with problematic drug or alcohol dependencies.

Clinical treatment of Substance Use and Misuse in prisons is detailed in Clinical Management of Drug Dependence in the Adult Prison Setting (DH 2006) and in the Clinical Guidelines on Drug Misuse and Dependence Update 2017.

### Screening and Assessment

Screening for substance use and misuse is recommended as part of the first-stage health assessment of adults in prison. If the use and misuse of street drugs, alcohol or prescription medication is identified, referral to the substance misuse team will be required in reception, in order to assess and actively manage immediate clinical need and risk of self-

harm and suicide. Assessment should include questions about the use of illicit substances and the illicit use of prescribed medicines.

If a more detailed assessment by the substance misuse team identifies symptoms of withdrawal or a dependence disorder, care planning and treatment should be initiated in reception and linked with plans for further assessments and interventions throughout the period in custody. Prisoners at risk of withdrawal or toxicity in the first five days in prison should be located where enhanced, regular observations (at least twice daily) can be facilitated.

Information gathering and good communication between community, prison and healthcare teams is essential in the active management of risk of those with substance misuse problems. Information from the Person Escort Record (PER); Assessment, Care in Custody and Teamwork (ACCT); community pharmacies and summary care record all contribute to patient safety on the first night in prison.

Multidisciplinary integrated teamwork then continues to underpin safe and effective management throughout the time in prison, focusing on goals that include harm reduction and building recovery capital, and identifying and addressing often complex physical and mental health comorbidities and social needs.

People may use substances in prison for a variety of reasons. They may present in an intoxicated state or admit to using drugs obtained illicitly on the wings. A wide variety of substances are used in prison. Pregabalin, Spice and Mamba are particularly popular and problematic.

It may be necessary to withhold other medications if a prisoner presents for treatment in an intoxicated state. If treatment is withheld, the prescriber should be informed, and the prisoner monitored until symptoms of intoxication resolve. Urine drug testing and observations for withdrawal symptoms should be used prior to considering any detoxification or substitute treatment. Prisoners who drop out of treatment in prison, or behave strangely or differently, should be carefully evaluated as they may be at risk of coming to harm.

### **Treatment**

Psychosocial interventions, mutual aid, peer support and community recovery programmes form the mainstay of treatment for dependence on some substances including cocaine, cannabis and synthetic cannabinoids such as Mamba and Spice. Drugs which cause physical dependency, such as opioids and benzodiazepines and alcohol, often require a combination of pharmacological and psychosocial approaches.

Prescribing for prisoners with a history of substance misuse is challenging due to a number of factors. These include the accuracy of self-reporting of both illicit and community-prescribed medication that

cannot initially be confirmed or refuted. The management of confirmed polypharmacy for comorbidities, including multiple sedating drugs at risk of diversion and abuse in the prison setting, presents a challenge to prescribers who have to make complex prescribing decisions. Their aim should be to simplify the prescription and make it as safe as possible. Polyprescribing to patients with addiction problems is not recommended in a prison setting or the community. Managing chronic pain and mental illness makes this a highly skilled and complex area of practice. Threats of litigation compound the problem and therefore exemplary record keeping is advised. Problems of violence and the increased risk of self-harm associated with withdrawal from drugs or alcohol further complicate treatment. Increasing levels of harm caused by Novel Psychoactive Substances (NPS) such as Spice, Mamba and Monkey Dust have had a hugely damaging effect upon prisoners and prisons, and created huge demand of urgent care services.

If prescribing is indicated for management of substance misuse or co-existing health problems, a compact should be signed by the patient in order to enter into an agreement to take medication appropriately.

All drugs prescribed for substance misuse should be administered under supervision. This requires co-operative working, taking into account clinical need and the constraints of the operational regime.

Other medications at particular risk of abuse and diversion, including strong analgesia and psychotropic medication if prescribed, should be taken under supervision.

### **Opioid dependence**

People entering custody may be dependent on illicit opioids, for example heroin; on over-the-counter (OTC) opioids, for example codeine-containing analgesics; or on prescribed opioids, obtained through their GP or from an illicit source, such as tramadol, dihydrocodeine and codeine.

There is good evidence for management of heroin dependence with opiate substitute treatment (OST) but less evidence for the treatment of withdrawal from OTC or prescribed opioids.

Prescribing in prison for opioid dependence should normally only be initiated after confirming:

- history of regular opiate use
- urine test positive for opiates, methadone or buprenorphine
- evidence of opiate withdrawal.

Prisoners may enter custody already stabilised on OST. If the dose, adherence to medication, date of last pick-up and supervision of medication can be confirmed through contacting the dispensing

community pharmacy, treatment should continue at the dose prescribed in the community, although a lower dose may be required while in prison. The administration of dihydrocodeine in police custody as well as the length of time spent in police custody may have a bearing on a urine drug test.

If a prisoner enters custody for a short period only, stabilised on buprenorphine and not using other illicit drugs on top of their script, their prescription may be continued in order to offer equivalence of treatment to that in the community. Currently, however, methadone is the drug of choice for OST in prison, due to the greater risk of diversion and misuse of buprenorphine and the impact on the regime caused by the length of time taken for safe supervised consumption of buprenorphine. New delivery mechanisms for buprenorphine using orodispersible formulations may improve this problem.

Case-by-case consideration for continuing the community-prescribed dose will be required for the minority group of patients who are taking OST unsupervised in the community, who are free of illicit drugs due to proven stability, and for those who have had doses of OST omitted while in police custody.

If details of an ongoing community OST prescription cannot be confirmed or the prisoner is not on an OST prescription, but immediate treatment of withdrawal is indicated in reception (positive urine test and evidence of opiate withdrawal), an induction and stabilisation regime of OST should be initiated at a safe dose.

Methadone is usually started in reception at a dose of 10mg as liquid (1mg/ml strength). Doses are then given regularly, split into two for the first few days and increased by no more than 5–10mg per day and no more than 30mg in the first week. Doses of methadone are typically lower in prison than in the community as the availability of heroin is reduced in prison.

If a prisoner does not wish to start methadone or cannot tolerate it, symptomatic relief for opiate withdrawals may be offered for a limited period, usually up to five days. Promethazine is commonly prescribed for insomnia and NSAIDs for pain. Metoclopramide or prochlorperazine may be prescribed for nausea and vomiting. Mebeverine is less likely to be misused and diverted than hyoscine butylbromide and is the drug of choice for managing abdominal cramps.

Loperamide should be prescribed with caution for reported symptoms of diarrhoea since it may be misused to enhance the euphoric effects of opioids.

Those prisoners on remand or serving short sentences will usually remain on a maintenance script of OST. Those with longer sentences should be regularly reviewed and offered the opportunity to make an informed choice to reduce their OST dose and undergo assisted withdrawal (detoxification), usually at a rate of 5mg every one to two weeks. There is no evidence for enforcing detoxification or for exponential dose reduction over linear reduction.

Buprenorphine is safer in overdose than methadone. Rapidly-absorbed forms of buprenorphine such as Espranor are not clinically equivalent to other formulations and guidance has been issued to support consideration of these new products within local formularies. Assisted withdrawal (detoxification) using buprenorphine can be a useful alternative to methadone.

Both methadone and citalopram prolong the QT interval. Most manufacturers advise avoiding the use of two or more drugs that are associated with QT prolongation. Increasing age, female sex, cardiac disease, and some metabolic disturbances (notably hypokalaemia) predispose to QT prolongation. Severity of interaction: Severe.

### **Cocaine**

Crack cocaine and cocaine use are commonly part of a chaotic polydrug misuse picture in those entering prison. Crack may be smoked or injected together with heroin, a technique referred to as 'snowballing'.

Cocaine is a stimulant. Problems with both physical and mental health can result from its use and withdrawal. Cardiovascular and cerebrovascular problems include hypertension, intracranial bleeding or thrombosis and cardiac arrest. Cocaine affects the release of serotonin.

Psychological symptoms include agitation, psychoses and insomnia. Mood swings and severe depression may also occur. Patients experiencing these symptoms require a mental health assessment and close monitoring, possibly through the ACCT system. Short-term pharmacological treatment such as antipsychotic medication may also be needed.

There is no evidence that drug treatment promotes abstinence from stimulants. Psychosocial support forms the core treatment for stimulant addiction.

If concurrent opioid dependence is being treated with OST, optimisation of the OST may reduce or stop continuing cocaine and crack cocaine use.

### Serotonin syndrome

Serotonin syndrome (serotonin toxicity) is a potentially life-threatening reaction due to excessive serotonin levels at central and peripheral nerve synapses. Particular drugs (illicit or prescribed) or drug interactions can lead to excessive serotonin, with higher and repeated doses resulting in more severe reactions. Drugs associated with serotonin syndrome include:

- Illicit amphetamine-type substances (ATS): MDMA, MDPV, PMA, mephedrone, methamphetamine and cocaine.
- Prescription: MAOIs, tricyclic antidepressants, SSRIs, opiates (tramadol) and antiemetics.

Serotonin syndrome has three classic features: mental state changes, autonomic hyperactivity and neuromuscular abnormalities. Mental state changes occur in 40% of cases. Symptoms include agitation, confusion, delirium and hallucinations, with drowsiness and coma in severe toxicity.

Autonomic hyperactivity (in 50%) may present with tachycardia, hypertension or hypotension progressing to shock, hyperthermia, mydriasis and excessive sweating. Neuromuscular abnormalities (in 50%) include shivering, tremor, teeth grinding, muscle rigidity and clonus, hyperreflexia, ocular clonus and seizures.

Death usually occurs as a result of hyperpyrexia-induced multi-organ failure.

If serotonin syndrome is suspected, any drugs thought to be contributing to the adverse reaction should be stopped and advice obtained from the National Poisons Information Service (NPIS), either using [TOXBASE](#) or the 24-hour telephone service (UK NPIS 0344 892 0111). Emergency hospital admission will be required for all except very mild cases.

### Benzodiazepines

Benzodiazepines may be prescribed in the community for the short-term management of anxiety, insomnia, acute psychosis and acute back pain associated with muscular spasm. Specific benzodiazepines may also be prescribed for use in other conditions: clonazepam may be initiated (by a neurologist) as adjunctive therapy in epilepsy, and midazolam may be used in the treatment of status epilepticus and in end-of-life care. Dependence may develop within two to four weeks of regular use. Maintenance benzodiazepine prescribing is well recognised in the community and notoriously difficult to stop when established in a patient. Psychiatrists do prescribe maintenance benzodiazepines to some patients who experience mental illness and to some drug users who are addicted to benzodiazepines.

These drugs are very popular in society and widely abused.

Benzodiazepines are readily obtained by drug users in the community and general practitioners should be aware that prescriptions may be requested in order to be abused or diverted. Supplies are also bought from the internet.

Benzodiazepines are popular drugs of abuse due to their initial effect of euphoria followed by relaxation and sleep. They are often taken at high doses (for example 100mg/day) and are particularly dangerous if taken together with other sedating medication (for example opiates, antipsychotics) or alcohol when they may contribute to respiratory depression and death.

Prescribing benzodiazepines in prison should be primarily limited to use in assisted withdrawal (detoxification) from benzodiazepine and alcohol dependence. In exceptional circumstances, it is possible to prescribe for a prisoner with severe acute anxiety or with agitation associated with psychosis, but this should be limited to a very short duration (less than two weeks), following discussion with the mental health team and with a plan for an urgent review of the mental health crisis. Buccal midazolam is the recommended treatment of status epilepticus.

### **Assisted withdrawal (detoxification) from benzodiazepines**

If there is a history of at least two to four weeks of regular illicit benzodiazepine use up to the point of arrival in reception, positive urine results and evidence of withdrawal, using withdrawal scores, an assisted withdrawal (detoxification) regime may be initiated in reception.

Untreated benzodiazepine withdrawal is a potentially serious clinical problem which can lead to psychosis, suicide and lethal status epilepticus. For these reasons benzodiazepine dependency must be carefully evaluated and skilfully managed.

Diazepam is usually the drug of choice due to its longer half-life. A safe dose of diazepam, e.g. 10mg, may be given in reception with an agreed plan to follow a regular dose tapering, usually reducing by 2mg/week.

The maximum licensed dose of diazepam is 30mg daily, however, there should rarely be a requirement to prescribe more than 20mg per day in prison as this dose should inhibit seizures. Dose equivalence information between diazepam and other benzodiazepines is available in the *BNF*.

If a patient comes into custody with a prescription of benzodiazepines for severe anxiety and good adherence can be confirmed, then a decision may be taken to continue at the prescribed dose initially, with an agreement to engage with the mental health team and consider initiating a safe detoxification once alternative medication options and non-pharmacological support have been explored.

If there is confirmation of community prescribing of a benzodiazepine, e.g. clonazepam, which the patient states to be prescribed for epilepsy, a careful review of the clinical notes should be carried out as part of the medicines reconciliation process. It is very unlikely that clonazepam would be used as monotherapy for epilepsy and if there is no good evidence of a diagnosis of epilepsy in the notes, clonazepam should be converted to an equivalent dose of diazepam and assisted withdrawal (detoxification) initiated.

If clonazepam is confirmed as an adjunctive medication prescribed for a patient with complex epilepsy, then this should be continued with an agreement that the patient will be referred to a neurologist for review of safer medication options in the prison setting, unless there has been specialist input within the previous year.

### **Assisted withdrawal (detoxification) from alcohol with benzodiazepines**

A significant proportion of prisoners have alcohol problems, which are often implicated in their imprisonment. Alcohol withdrawal leading to delirium tremens is a serious risk in these patients and this can be fatal if left untreated.

In addition, alcohol-dependent patients are at risk of neurological disorders due to a lack of B vitamins including thiamine, which may lead to Wernicke's encephalopathy. Therefore, treatment with thiamine, B vitamins and chlordiazepoxide, which is the benzodiazepine of choice for alcohol assisted withdrawal (detoxification) in prison, are the mainstay of care for alcohol withdrawal. Diazepam may be used if there is a history of concurrent benzodiazepine dependence.

An alternative option for concurrent dependence on alcohol and benzodiazepines is to prescribe chlordiazepoxide for the treatment of alcohol dependence and initiate monitoring for benzodiazepine withdrawals at the end of the alcohol assisted withdrawal regime. If benzodiazepine withdrawals are present, then treatment can be continued with diazepam from 10mg daily with a weekly 2mg dose reduction.

### **Alcohol**

Screening for alcohol dependence takes place as part of the first-night screening in reception. People who drink more than 15 units per day for over 15 consecutive days may experience alcohol withdrawal symptoms when they stop drinking on entering prison and they may require alcohol withdrawal treatment.

AUDIT (or similar shortened version AUDIT-C), SADQ – severity of alcohol dependence, and Clinical Institute Withdrawal Assessment – Alcohol, revised (CIWA–Ar) scale – are all tools used to quantify drinking



and identify alcohol use disorders. They may be used as part of the secondary screening process and also to monitor withdrawal symptoms in those identified with possible alcohol dependence.

Medical management of acute alcohol withdrawal is covered in NICE guidance 2010. The chlordiazepoxide starting dose will vary according to the severity of dependence and reported daily alcohol intake. It is usual to have a tiered entry point dosing regime with fixed dose tapering over seven days.

Prisoners coming into prison may give a history of excessive drinking in order to obtain benzodiazepines, either for their own use or for diversion. It is therefore important to initiate withdrawal observations immediately, but to consider starting benzodiazepine treatment only in those demonstrating signs of acute alcohol withdrawal.

If withdrawal symptoms and signs are present but there is doubt as to the level of drinking, it may be safer to start treatment at a lower entry point, continue regular observations and then titrate up to a higher benzodiazepine dose if withdrawal symptoms do not seem to be adequately managed.

Thiamine at doses at the upper end of *BNF* recommendations and Vitamin B compound strong should be given in conjunction with benzodiazepines, in order to prevent Wernicke's encephalopathy developing. Parenteral (intramuscular) B vitamins in the form of Pabrinex should be given to those particularly at risk, such as the malnourished, those with decompensated liver disease, and the most vulnerable rough-sleeping alcohol-dependent patients. Oral thiamine and Vitamin B compound strong is given to those at a lower risk. In practice, parenteral thiamine is usually given for the first two to three days of the highest tier alcohol detoxification regime, and then switched to be given orally.

NICE guidance recommends prescribing for co-existing benzodiazepine and alcohol dependence with one benzodiazepine only. It recommends adding the regularly used daily diazepam dose to the dose required to manage the alcohol withdrawal. In practice in prison, no more than 30mg diazepam per day (or equivalent dose of chlordiazepoxide) should be required to prevent seizures. Higher doses, particularly with a history of polysubstance misuse, increase the risk of respiratory depression.

It is important to be aware that patients prescribed benzodiazepines for assisted withdrawal from benzodiazepine dependency and/or alcohol dependency have an increased risk of epileptic seizure. The patients at highest risk are those with epilepsy or those who have had repeated assisted withdrawal (detoxification) treatment. These patients may benefit from a higher dose of benzodiazepines or from the use of carbamazepine. In such cases, it is wise to seek specialist advice. These patients will require closer observation.

If a patient attends for their supervised chlordiazepoxide dose and appears to be intoxicated, the dose of benzodiazepine should be withheld and the patient closely monitored. If it becomes clear that their incoherence or confusion is part of delirium tremens, they should be urgently admitted to hospital. Be aware that hypoglycaemia may mimic alcohol-related confusion and therefore check the blood sugar in an alcohol-dependent patient in custody who is unwell.

Psychosocial interventions for alcohol dependence that can be offered in the prison setting include peer support groups and mutual aid groups, e.g. Alcoholics Anonymous.

Acamprosate, disulfiram, nalmifene or naltrexone (in those not on OST) may be offered as part of a relapse prevention support plan in prisoners due to be released back into the community, however, these treatments are usually specialist-led.

### **NPS/Club Drugs**

The terms NPS (new or novel psychoactive substances), Club Drugs or 'legal highs' refer to a group of psychoactive drugs, often synthetic, originally designed to replicate the effects of illegal drugs including cocaine, cannabis and ecstasy. NPS can be divided into four main categories: synthetic cannabinoid receptor agonists (SCRAs), stimulants, depressants, hallucinogens.

The majority of NPS used in prisons are SCRAs, marketed under names such as Spice, Clockwork Orange and Black Mamba. They are available in herbal mixture, powder and liquid form sprayed onto letters and children's pictures.

SCRAs cause relaxation, euphoria and disinhibition. They can also cause dangerous acute adverse effects. These include convulsions, paralysis, tachycardia, hypotension or hypertension, psychosis, extreme bizarre behaviour, agitation and aggression. Severe harm has been caused by these substances including penis amputation, ear amputation, eye gouging and self-immolation.

They have been popular in prisons due to their unpredictable effects, relatively low cost, lack of detectability, and legal status. Urine testing for NPS is now available and in 2016 the Psychoactive Substances Act was passed, making it illegal to possess NPS in prison (as well as illegal to sell, make, import and export SCRAs). Despite this, NPS remain popular.

Project NEPTUNE (2015) was developed to improve the clinical management of harm from NPS and an NPS toolkit was developed by Public Health England for prison healthcare, substance misuse and custodial teams to provide information and guidance on clinical, psychosocial and regime management.

Guidance for treatment of acute intoxication is available from the National Poisons Information Service (TOXBASE). Symptom-directed

supportive care is recommended and may include medication to treat convulsions, agitation or psychosis. Transfer to hospital may be required if patients do not respond quickly or their symptoms are severe.

Psychosis and aggression may persist beyond the acute phase of NPS toxicity, requiring psychosocial support, drug treatment and in severe cases, admission under the Mental Health Act.

### **IPEDs**

Image and performance enhancing drugs (IPEDs) include a wide range of drugs that are taken in order to enhance appearance or abilities. These include anabolic steroids, growth hormones, human chorionic gonadotropin and peptide hormones.

IPEDs can cause adverse cardiovascular, haematological, neurological, metabolic, hormonal and psychiatric effects. Users are exposed to risk from incorrect labelling and from contamination of drugs as well as from the harms associated with injecting. On stopping IPEDs, insomnia, headaches and low mood may occur, and endocrine imbalances may emerge.

Support of IPED users involves harm reduction measures and if endocrine problems develop, specialist referral. There is no evidence to support specific drug therapy in the prevention or treatment of symptoms of withdrawal.

### **Dependence on prescribed medication**

First-night reception screening includes questions to detect addiction to over-the-counter and prescribed medication. However, in reality, dependence on prescribed medication is rarely acknowledged at this stage and it can be challenging to provide a holistic multidisciplinary approach to reduction or cessation of inappropriate prescribed medication.

The medicines reconciliation process is an important initial step in optimising prescribing and entry into prison can be viewed as an opportunity to review all prescribed medications for ongoing clinical need. The use of a prison formulary and a multidisciplinary approach to prescribing for patients with complex problems and substance misuse issues is recommended.

Medicines at high risk of misuse, diversion and dependence in prison include those with psychoactive effects such as:

- sedating antidepressants (for example mirtazapine)
- antipsychotics (for example quetiapine)
- high potency analgesics:
  - opioids (for example tramadol)
  - gabapentinoids (for example pregabalin)

- hypnotics (for example zopiclone)
- anxiolytics (for example diazepam)
- certain antiepileptics (for example clonazepam).

It is recommended that these high-risk medications should be taken under supervision, or arrangements made to check compliance, and generally not prescribed to drug users unless prescribing is absolutely necessary, as they are typically sold and abused.

Other chapters cover prescribing for **Acute and persistent pain** and **Neuropathic pain**, and dependence on opiates is discussed earlier in this chapter. Here we will consider briefly the misuse of or dependence on gabapentinoid drugs.

### **Dependence on gabapentin and pregabalin**

Gabapentin and pregabalin both appear to affect the dopaminergic reward system, with the potential to cause dependence, although the mechanism by which they do this is not yet fully understood. Pregabalin is more sought after than gabapentin and this seems to be due to the euphoric effects that can be achieved with higher doses. Both drugs will be recategorised as class C controlled drugs from April 2019.

Multidisciplinary assessment, e.g. by physiotherapist and GP, of a patient taking gaba-drugs can ensure an accurate assessment of ongoing clinical need. If it is considered that a patient has no clinical indication for the drug, or if they have been found to be misusing or diverting their medication, the dose should be tapered and stopped.

In order to minimise withdrawal symptoms on stopping gaba-drugs, gradual tapering (by a maximum daily dose of 50–100mg per week of pregabalin or a maximum of 300mg every four days of gabapentin) is recommended in the Drug misuse and dependence: UK guidelines for clinical management 2017. Benzodiazepines or other adjunctive medications are not recommended for symptomatic relief of withdrawal.

The risk of misuse means that gabapentinoids should be avoided in patients with drug-related problems.

### **Continuity of care on transfer or release for people with substance misuse problems**

Continuity of care for prisoners who misuse drugs is important and good communication between substance misuse teams and with pharmacies is important prior to transfer or release into the community. Prisoners released or transferred should receive their dose of OST before they leave. FP10 and FP10MDA prescriptions can be used so prisoners can access a continued supply of their OST until they are seen by a community substance misuse prescriber.

Prisoners with alcohol dependence who have completed a detoxification should be offered ongoing psychosocial support after release or transfer. It may also be appropriate to discuss the use of acamprosate, disulfiram, nalmifene or naltrexone (if not on concurrent OST) to reduce the likelihood of relapse.

Take-home naloxone should be included in release planning pathways and supplied in prisons or in the community post-release. The pathway for accessing the naloxone should be based on decisions agreed with the community substance misuse provider and on an individual patient basis to patients who have been addicted to illicit opioids and in particular heroin injectors.

If a prisoner has been through opiate assisted withdrawal (detoxification) in prison but is concerned about relapse on release into the community, a reintroduction (retoxification) programme may be considered to start in the week prior to release, once a date of release has been confirmed.

### Recommended drugs

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Methadone</b>	Starting dose of 10–30mg (increasing according to response) Dose above 60mg daily rarely required in prison.	Prescribers are advised to start with a low dose and increase slowly according to patient response. Only specialist prescribers should exceed 40mg. Lower doses in prison are required when compared to the community setting. If increase above 30mg required, do not increase at rate of more 20mg per week.
	<b>Buprenorphine</b>	2–8mg	Licensed up to 32mg but high doses rarely required in prison. Prescribing at low dose with gradual increment is advised.
	<b>Diazepam</b>	5–20mg	Preferably prescribe as liquid formulation to reduce the chance of diversion and improve concordance. Reduce by 2mg per week. Doses greater than 20mg rarely required.
	<b>Chlordiazepoxide</b>	40–200mg daily (in divided doses)	<i>BNF</i> advises maximum dose of 250mg per day. Gradual reduction over 7–10 days.

### References

Department of Health. Clinical Management of Drug Dependence in the Adult Prison Setting including psychosocial treatment as a core part. London: Department of Health, 2006.

Drug misuse and dependence: UK guidelines on clinical management. Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group (2017) Drug misuse and dependence: UK guidelines on clinical management. London: Department of Health. [gov.uk/government/uploads/system/uploads/attachment\\_data/file/628634/clinical\\_guidelines\\_2017.pdf](http://gov.uk/government/uploads/system/uploads/attachment_data/file/628634/clinical_guidelines_2017.pdf)

Prison Service Instructions. [justice.gov.uk/offenders/psis](http://justice.gov.uk/offenders/psis)

Espranor (buprenorphine oral lyophilisate) 2mg and 8mg: Considerations for opioid substitution therapy use in community settings and secure environments SPS 2017. [sps.nhs.uk/wp-content/uploads/2017/02/Espranor-v6.2-final.pdf](http://sps.nhs.uk/wp-content/uploads/2017/02/Espranor-v6.2-final.pdf)

National Institute for Health and Care Excellence (2017) Mental health of adults in contact with the criminal justice system. NICE guideline (NG66). [nice.org.uk/guidance/ng66](http://nice.org.uk/guidance/ng66)

National Institute for Health and Care Excellence (2016) Physical health of people in prison. NICE guideline (NG57) [nice.org.uk/guidance/ng57](http://nice.org.uk/guidance/ng57)

National Institute for Health and Care Excellence (2017) Health of people in the criminal justice system pathway. [pathways.nice.org.uk/pathways/health-of-people-in-the-criminal-justice-system](http://pathways.nice.org.uk/pathways/health-of-people-in-the-criminal-justice-system)

NICE. Methadone and buprenorphine for managing opioid dependence. NICE technology appraisal guidance 114. London: NICE, 2007. [nice.org.uk/guidance/ta114](http://nice.org.uk/guidance/ta114)

NICE. Naltrexone for managing opioid dependence. NICE technology appraisal guidance 115. London: NICE, 2007. [nice.org.uk/nicemedialive/11604/33814/33814.pdf](http://nice.org.uk/nicemedialive/11604/33814/33814.pdf)

National Institute for Health and Clinical Excellence (2011) Alcohol-use disorders: diagnosis, assessment and management of harmful drinking and alcohol dependence. Clinical guideline [CG115] [nice.org.uk/guidance/cg115](http://nice.org.uk/guidance/cg115)

National Institute for Health and Clinical Excellence (2010) Alcohol-use disorders: diagnosis and management of physical complications. Clinical guideline [CG100] (updated April 2017) [nice.org.uk/guidance/cg100](http://nice.org.uk/guidance/cg100)

National Collaborating Centre for Mental Health. Opioid detoxification. National Clinical Practice Guideline Number 52 commissioned by the National Institute for Health & Clinical Excellence (NICE). London: The British Psychological Society and The Royal College of Psychiatrists, 2008.

National Institute for Health and Care Excellence. *British National Formulary*. [bnf.nice.org.uk/](http://bnf.nice.org.uk/)

National Institute for Health and Care Excellence (2017) Mental health of adults in contact with the criminal justice system. NICE guideline (NG66). [nice.org.uk/guidance/ng66](http://nice.org.uk/guidance/ng66)

National Institute for Health and Care Excellence (2016) Physical health of people in prison. NICE guideline (NG57). [nice.org.uk/guidance/ng57](http://nice.org.uk/guidance/ng57)

National Institute for Health and Clinical Excellence (2007). Methadone and buprenorphine for managing opioid dependence. NICE technology appraisal guidance (TA114). [nice.org.uk/guidance/ta114](http://nice.org.uk/guidance/ta114)

National Institute for Health and Clinical Excellence (2007). Naltrexone for managing opioid dependence. NICE technology appraisal guidance (TA115). [nice.org.uk/guidance/ta115](http://nice.org.uk/guidance/ta115)

National Institute for Health and Clinical Excellence (2007). Drug misuse in over 16s: psychosocial interventions. Clinical Guideline (CG51). [nice.org.uk/guidance/cg51](http://nice.org.uk/guidance/cg51)

National Institute for Health and Clinical Excellence (2007). Drug misuse in over 16s: opioid detoxification. Clinical Guideline (CG52). [nice.org.uk/guidance/cg52](http://nice.org.uk/guidance/cg52)

National Institute for Health and Clinical Excellence. Drug misuse management in over 16s overview. NICE Pathways. (last updated: 21 February 2017). [pathways.nice.org.uk/pathways/drug-misuse-management-in-over-16s](http://pathways.nice.org.uk/pathways/drug-misuse-management-in-over-16s)

National Institute for Health and Clinical Excellence (2011) Coexisting severe mental illness (psychosis) and substance misuse: assessment and management in healthcare setting. Clinical Guideline (CG120). [nice.org.uk/guidance/cg120](http://nice.org.uk/guidance/cg120)

National Institute for Health and Clinical Excellence (2012) Drug use disorders in adults. Quality Standard (QS23). [nice.org.uk/guidance/qs23](http://nice.org.uk/guidance/qs23)

National Institute for Health and Clinical Excellence (2011). Alcohol-use disorders: diagnosis and management. Quality Standard (QS11). [nice.org.uk/guidance/qs11](http://nice.org.uk/guidance/qs11)

National Institute for Health and Clinical Excellence (2010). Alcohol-use disorders: diagnosis and management of physical complications. Clinical Guideline (CG100). [nice.org.uk/guidance/cg100](http://nice.org.uk/guidance/cg100)

National Institute for Health and Clinical Excellence (2011). Alcohol-use disorders: diagnosis, assessment and management of harmful drinking and alcohol dependence. [nice.org.uk/guidance/cg115](http://nice.org.uk/guidance/cg115)

Novel psychoactive treatment: UK network (NEPTUNE) 2015. Guidance on the Clinical Management of Acute and Chronic Harms of Club Drugs and Novel Psychoactive Substances. [neptune-clinical-guidance.co.uk/wp-content/uploads/2015/03/neptune-guidance.pdf](https://neptune-clinical-guidance.co.uk/wp-content/uploads/2015/03/neptune-guidance.pdf)

Public Health England 2015. New psychoactive substances (NPS) in prisons. A toolkit for prison staff. [gov.uk/government/publications/new-psychoactive-substances-toolkit-prison-staff](https://gov.uk/government/publications/new-psychoactive-substances-toolkit-prison-staff)

PHE Alcohol Learning resources. Severity of Alcohol Dependence Questionnaire. [smarcjs.org.uk/wp-content/uploads/2015/07/SADQ.pdf](https://smarcjs.org.uk/wp-content/uploads/2015/07/SADQ.pdf)

National Poisons Information Service – Toxbase. [toxbase.org/Poisons-Index-A-Z/S-Products/Serotonin-syndrome](https://toxbase.org/Poisons-Index-A-Z/S-Products/Serotonin-syndrome)



## Key messages

- Anxiety should be screened for at the first-stage health assessment.
- Anxiety may be triggered or exacerbated by the prison environment. Comorbid disorders may influence presentation.
- Prior to custody, anxiety may have been managed by self-medicating with illicit drugs or alcohol.
- Different types of anxiety disorder require specific interventions, detailed in NICE guidance. Psychological therapies form the mainstay of treatment.
- If medication for anxiety is required, SSRIs are first-line choice. Benzodiazepines should not be prescribed on a regular ongoing basis to manage anxiety.

The prison environment is a challenging setting for anyone with a pre-existing anxiety disorder. It may also trigger symptoms of anxiety in individuals who have not previously experienced them. This can be for a variety of reasons, including impending court cases, breakdown of family relationships, financial or housing problems, issues with debt or bullying, challenging behaviour on the wings, the imposed regime and lack of privacy and control.

Comorbid presentations should be considered when evaluating patients with anxiety disorders. These include depression, bipolar disorder, alcohol addiction, drug misuse, psychosis, neurodevelopmental disorders and personality disorders.

Self-medication with illegal drugs, alcohol and illicit prescription medicines is well recognised in patients with anxiety disorders and as a self-treatment for insomnia. First-night screening, secondary screening and medicines reconciliation processes should identify these problems. However, the prison environment can exacerbate or trigger anxiety which will require further assessment.

NICE QS53 (2014) provides clear standards for recognition, assessment and treatment of different anxiety disorders. Psychological therapies form the mainstay of anxiety management and will not be covered in detail by this publication. Historically the availability of psychological therapies in prisons has been variable. There are constraints on delivering psychological interventions in prisons due to insufficient numbers of appropriately trained staff, resources, timescales and logistics.

## Post-traumatic Stress Disorder

The estimated prevalence of Post-Traumatic Stress Disorder (PTSD) in prisoners is 4–21% with women affected more than men. This is higher than the general population. Traumatic events associated with high PTSD rates include rape, combat exposure, childhood neglect, physical and sexual abuse, physical attack, being threatened with a weapon, kidnap, being held hostage and torture.

Symptoms include re-experience (flashbacks, nightmares, repetitive distressing images or sensory impressions), avoidance (avoiding people, situations or circumstances similar to or associated with the event) and hyperarousal (hypervigilance for threat, exaggerated startle response, insomnia, concentration problems and irritability).

Trauma-focused psychological treatment is the first-line intervention for PTSD. This is usually delivered over 8–12 sessions and should be delivered regularly, continuously (weekly) and by the same person.

Comorbidities should be managed: risk of suicide, risk of harm to others and drug or alcohol problems should be managed before PTSD; PTSD should be managed before depression (except in severe cases) or grief due to unnatural or sudden death. In prisoners with personality disorders (estimated prevalence 70% in prisoners), trauma-focused psychological interventions may need to be extended beyond 8–12 sessions.

Drugs should not be prescribed as first-line treatment in PTSD. Paroxetine or mirtazapine (non-specialist use) and amitriptyline or phenelzine (specialist use) are recommended by NICE guidance if a person:

- prefers not to engage in trauma-focused psychological interventions
- cannot start psychological treatment due to threat of further trauma
- has gained minimal benefit from a course of trauma-focused psychological intervention
- has significant depression or hyperarousal that are preventing benefit from the psychological treatment.

Paroxetine may cause discontinuation symptoms if stopped abruptly and there are risks with mirtazapine and amitriptyline which include increased sedation, interactions with other drugs, abuse and diversion.

For sleep disturbances associated with PTSD, a short course of hypnotics may be beneficial. Promethazine is suggested in preference to 'Z' drugs (zopiclone, zolpidem). A sedating antidepressant, introduced early, may be a longer-term alternative.

Monitoring of drug treatment: all patients under 30 and those at increased risk of suicide should be seen one week after starting treatment. Others should be seen one to two weeks after starting treatment and then every two to four weeks in the first three months.

If drug treatment is effective in an adult with PTSD, it should be continued for at least 12 months before gradual withdrawal. If it is not effective, the dose of antidepressant may be increased, a different class of antidepressant used, or adjunctive olanzapine introduced under specialist direction.

### **Social Anxiety Disorder**

Guidance on the recognition, assessment and treatment of social anxiety disorder is detailed in NICE clinical guideline CG159 (2013). Assessment should explore fear, avoidance, distress and functional impairment and it should identify any comorbid disorders.

All interventions should be delivered by competent practitioners and psychological treatment should be delivered using approved treatment manuals.

Specifically developed individual cognitive behavioural therapy (CBT) is the treatment of choice for social anxiety disorder. It is more clinically effective and cost-effective than group CBT but comprises up to 14 sessions, each 90 minutes in length, delivered over the course of four months. Its use will therefore be limited by commissioning, workforce and logistical factors as well as by the prisoner's length of stay.

CBT-based supported self-help is a less resource-intensive evidence-based intervention that can be delivered. It entails working through a CBT-based self-help book with up to three hours of support over three to four months. Its accessibility will be limited in those with poor reading skills and learning difficulties.

In the community, electronic CBT is also available as well as a number of mindfulness programmes and applications such as Headspace.

Pharmacological treatment of social anxiety disorder is with an SSRI (first choice: sertraline, citalopram or escitalopram). If there is only a partial response after 10–12 weeks of treatment, individual CBT is recommended in addition to the SSRI.

If symptoms have not responded to first-line SSRIs or side effects cannot be tolerated, an alternative SSRI (fluvoxamine or paroxetine) or an SNRI (venlafaxine) can be offered. If these are ineffective, MAOI (phenelzine<sup>2</sup> or moclobemide) can be used, but should be specialist-only initiated and monitored with accompanying advice on dietary restrictions due to interactions with specific foods.

Close monitoring of prisoners initiated on SSRI or SNRI treatment is important due to the possible side effects of increased restlessness or agitation and the increased risk of suicide in those under 30.

Prior to starting treatment, prisoners under 30 offered an SSRI or SNRI should be warned about possible suicidal ideation and self-harm. Their

risk of suicidal thinking and self-harm should be monitored weekly for the first month of treatment. Those assessed not to be at risk of suicide may then be reviewed every two to four weeks for the first three months of treatment and monthly after that point. Prisoners considered at risk of suicide should be supported through the ACCT process and reviewed weekly until that risk is no longer increased, at which point medication review frequency can be reduced to two to four weekly for up to three months then monthly.

Prisoners 30 years and older not assessed to be at risk of suicide should be reviewed within one to two weeks of starting SSRI or SNRI treatment then two to four weekly for the first three months then monthly.

There should be concurrent support in graduated exposure to feared or avoided social situations during pharmacological treatment.

If there has been a good response to pharmacological treatment in the first three months, it should be continued for at least a further six months. If a decision is then made to stop treatment, the dose should be reduced gradually to avoid discontinuation symptoms. If symptoms recur during dose reduction or after stopping treatment, the dose of SSRI or SNRI should be increased or reintroduced if this is acceptable to the patient. Alternatively, individual CBT could be offered.

Although short-term psychodynamic psychotherapy is a treatment option for social anxiety disorder, it is less effective and less cost-effective than other interventions. 25–30 sessions are delivered over six to eight months within a positive therapeutic relationship. It should not be recommended if there is a likelihood of a prisoner being transferred or released before the intervention can be completed. The availability of psychodynamic psychotherapy in most prisons is very limited.

The following should *not* routinely be offered: anticonvulsants, tricyclic antidepressants, benzodiazepines or antipsychotic medication.

### **Panic disorder**

There is no validated self-reporting screening tool to diagnose panic disorder. History should include details of any self-medication, and comorbidities particularly depression or substance misuse. Treatment options that can be offered include psychological therapy, pharmacological treatment and self-help.

CBT delivered by appropriately skilled staff (7–14 hours delivered weekly within four months) is the most effective treatment option for panic disorder. If intervention is briefer (seven hours) it should be supplemented with focused tasks, information and structured self-help materials. Treatment should be monitored, preferably using self-completed questionnaires.

Drug treatment licensed in the UK to treat panic disorder includes the SSRIs citalopram, escitalopram and paroxetine. There is also good evidence for the effectiveness of fluoxetine, fluvoxamine, sertraline and the SNRI venlafaxine.

If SSRIs are not suitable or ineffective after 12 weeks of treatment the tricyclic antidepressants (TCAs) imipramine or clomipramine may be considered, although they are more dangerous in overdose.

Benzodiazepines, sedating antihistamines and antipsychotics should not be prescribed for the treatment of panic disorder.

Efficacy and side effects of medication should be monitored at two, four, six and 12 weeks. If treatment is considered to be effective, further reviews should be scheduled every 8–12 weeks. Closer monitoring of patients under the age of 30 and those at risk of self-harm or suicide should be implemented.

CBT-based self-help books can be useful in the management of panic disorder. If used, review appointments should be offered to provide support, monitor effectiveness and offer alternative treatment options where required.

If one form of treatment (CBT, SSRI or self-help) is ineffective, another treatment modality can be offered. If two have been tried and found to be ineffective, referral to specialist mental health services should be considered. A holistic reassessment will then be performed to review effectiveness of previous treatments, lifestyle factors, caffeine use, smoking and nicotine, alcohol, illicit drug use, comorbidities and daily functioning.

### Generalised Anxiety Disorder

Generalised Anxiety Disorder (GAD) should be suspected in patients presenting frequently with a chronic physical health problem, patients seeking regular reassurance about physical symptoms and those presenting with concerns about a wide range of issues.

Distress and degree of functional impairment should be assessed along with severity and duration of symptoms and the presence of comorbid depression, physical illness and substance misuse.

A stepped care approach to Generalised Anxiety Disorder should be followed, beginning with the least intrusive, most effective intervention and moving to the next step if treatment is ineffective.

**Step one:** education about GAD and active monitoring.

**Step two:** low-intensity psychological interventions:

- non-facilitated CBT-based self-help (six-week course using written materials)

- guided self-help (five to seven weeks of written materials with weekly reviews of progress and outcome)
- psychoeducational group sessions (six weekly CBT-based sessions with leader:participant ratio 1:12).

**Step three:** high-intensity psychological interventions or drug therapy:

- CBT or applied relaxation.
- SSRI (sertraline first-line); other SSRI if sertraline ineffective or SNRI (venlafaxine).
- Pregabalin is licensed for the treatment of GAD if treatment with an SSRI or SNRI is ineffective (NICE) but its use in prison is not recommended due to toxicity, misuse, dependence and diversion.
- Benzodiazepines should not be offered for the treatment of GAD except in short-term crisis management (e.g. court attendance).
- Antipsychotics e.g. quetiapine should not be prescribed in primary care for use in GAD since they have not been shown to be an effective adjunctive treatment if an antidepressant is ineffective.

**Step four:**

- Complex, treatment-refractory GAD and very marked functional impairment or high risk of self-harm should be managed by the in-reach mental health team.
- NICE recommends a combined approach to management with high-intensity psychological treatments offered in combination with drug treatments, provided by practitioners with appropriate expertise.
- Combinations of antidepressants or augmentation of antidepressants with other drugs should only be prescribed by specialists.

Although there is evidence supporting the use of quetiapine as monotherapy in generalised anxiety disorder, it should not be prescribed in primary care and it is not recommended in secure settings due to the risk of misuse, dependence and diversion.

### **Obsessive-compulsive disorder**

Obsessive-compulsive disorder (OCD) is characterised by the presence of intrusive thoughts, images or urges (obsessions) or repeated driven behaviours or mental acts (compulsions) or both. The prevalence of OCD is around 1–2% with a higher risk of occurrence in people with comorbid depression, anxiety, alcohol or substance misuse. Principles of stepped care and treatment of obsessive-compulsive disorder (OCD) are covered in NICE clinical guideline CG31 (2005).

Assessment of OCD should sensitively explore thoughts, behaviours and any associated distress and disability. Rituals or compulsions may

impact on others (including children) and potential risks to the emotional, mental or social wellbeing of dependants should be identified. The risk of self-harm and suicide should also be assessed, particularly if there is comorbid depression.

Low-intensity psychological interventions, including Exposure and Response Prevention (ERP), are recommended as the first-line treatment approach in OCD with mild functional impairment. Brief (up to 10 hours) individual CBT with structured self-help materials or group CBT may be used. If this is unacceptable or ineffective, a course of SSRIs or more intensive CBT can be offered.

In OCD with moderate functional impairment, either Selective Serotonin Reuptake Inhibitors (SSRIs) or more intensive CBT should be offered. A combination of both SSRI and more intensive CBT is recommended for OCD with severe functional impairment.

SSRIs recommended for use in OCD include Fluoxetine 20–60mg; Fluvoxamine 50–300mg; Paroxetine 20–60mg; Sertraline 50–200mg; Escitalopram 5–20mg.

Initial side effects include worsening anxiety, self-harm and suicidal thoughts and require close monitoring, particularly in people under 30 years.

The SSRI dose may be increased after four to six weeks, if side effects permit and if there is an inadequate response to treatment. If there has not been an adequate response within 10 to 12 weeks, an alternative SSRI should be considered. If this is ineffective, NICE recommends considering the use of the tricyclic antidepressant, clomipramine (25–250mg), however, particular caution is required due to the risk of fatal cardiotoxicity in overdose.

If treatment for OCD with an SSRI is effective, treatment should be continued for at least 12 months after remission of symptoms to reduce the risk of relapse and to allow ongoing improvement. If, after this time, a decision is made to stop the SSRI, it must be done slowly to minimise the risk of discontinuation/withdrawal symptoms.

If more intensive treatment is required, options include: additional CBT or cognitive therapy; adding an antipsychotic to an SSRI or clomipramine; combining clomipramine and citalopram. These treatment augmentations should be supervised by a specialist.

Tricyclic antidepressants, other than clomipramine, SNRIs, MAOIs and anxiolytics (including benzodiazepines) are not recommended in the treatment of OCD. Antipsychotics should not be used as monotherapy.

Prescribers should be aware that certain drugs including SSRIs can prolong the QT interval. Caution and ECG monitoring are recommended when certain psychotropic medications are being prescribed.

## Recommended drugs

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Sertraline</b>	25–200mg	Panic disorder, PTSD, Social anxiety disorder.
		50–200mg	Obsessive-compulsive disorder.  Drug of choice post-MI and in epilepsy. Suitable if chronic physical health problem. Avoid in poorly controlled epilepsy or if symptoms of mania.
	<b>Citalopram</b>	10–40mg (<65y) 10–20mg (>65y liver impairment)	Panic disorder. Avoid if prescribed methadone or other QT lengthening drugs.
	<b>Escitalopram</b>	10–20mg (<65y) 5–10mg (>65y)	Generalised Anxiety Disorder. Obsessive-compulsive disorder.
		5–20mg (<65y) 2.5–10mg (>65y)	Panic disorder.
		5–20mg	Social anxiety.
	<b>Fluoxetine</b>	20–60mg (max usually 40mg elderly)	Obsessive-compulsive disorder. Caution: epilepsy, cardiac disease, diabetes mellitus, h/o bleeding disorder. Less suitable than sertraline or citalopram if chronic physical health problems (more drug interactions). <i>Avoid in women on tamoxifen.</i> Adults who have ingested 6mg/kg should be referred to hospital.
	<b>Paroxetine</b>	20–50mg (40mg max in elderly)	Social anxiety disorder, PTSD, GAD.
		20–60mg (40mg max in elderly)	OCD.
		10–60mg (40mg max in elderly)	Panic disorder.  Caution: see fluoxetine. Less suitable than sertraline or citalopram if chronic physical health problems (more drug interactions). <i>Avoid in women on tamoxifen.</i> More problems withdrawal reactions than other SSRIs. Potentially toxic dose: Adults who have ingested 3mg/kg should be referred to hospital.



## Recommended drugs contd

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Duloxetine</b>	30–60mg (maximum 120mg/d)	Generalised anxiety disorder.
	<b>Clomipramine</b>	Initial dose 25mg (10mg elderly) 100–150mg/d (up to 250mg)	May be used in phobias and obsessional states. Only prescribe with psychiatrist input.
	<b>Buspirone</b>	5mg bd–tds up to 45mg daily. Dose to be increased at intervals of 2–3 days; usual dose 15–30mg daily in divided doses.	Short-term use only. Not to be used in patients on benzodiazepines. <i>Avoid in epilepsy, pregnancy, breast feeding, severe liver impairment.</i> May cause dizziness, headache, excitement, nervousness, nausea.
	<b>Venlafaxine</b>	75–225mg	GAD, Social anxiety. Measure BP before and during treatment. Stop if hypertension develops. <i>Avoid if uncontrolled hypertension, risk of arrhythmia, recent MI.</i>
	<b>Chlorpromazine</b>	25mg tds or 75mg od (at night) initially; maintenance 75–300mg	Short-term adjunctive use: severe anxiety, agitation, disturbed, violent or dangerously impulsive behaviour. See <i>BNF</i> for contraindications and cautions. ECG if cardiovascular risk factors or disease.
	<b>Propranolol</b>		Indicated for managing autonomic symptoms of anxiety (palpitations, tremor). Not indicated for reduction of psychological symptoms or muscular tension. <i>Dangerous in overdose. Avoid in asthma.</i>
	<b>Benzodiazepines</b> <b>Tricyclic antidepressants</b> except those listed above. <b>Mirtazapine</b> <b>Trazodone</b> <b>Gabapentin and pregabalin</b> <b>Sedating antihistamines</b>		<i>Avoid due to clinical safety or diversion risk.</i>

## References

Gardner DL, Cowdry RW. Alprazolam-induced dyscontrol in borderline personality disorder. *American Journal of Psychiatry* 1985; 142(1): 98-100. [ajp.psychiatryonline.org/cgi/content/abstract/142/1/98](http://ajp.psychiatryonline.org/cgi/content/abstract/142/1/98)

Her Majesty's Prison & Probation Service, NHS England and Public Health England. Mental Health in Prisons. Report by the Comptroller and Auditor General. National Audit Office, June 2017. [nao.org.uk/wp-content/uploads/2017/06/Mental-health-in-prisons.pdf](http://nao.org.uk/wp-content/uploads/2017/06/Mental-health-in-prisons.pdf)

National Institute for Health and Clinical Excellence (2011). Generalised anxiety disorder and panic disorder in adults: management. Clinical guideline [CG113] [nice.org.uk/guidance/cg113](http://nice.org.uk/guidance/cg113)

National Institute for Health and Clinical Excellence (2013) Social anxiety disorder: recognition, assessment and treatment. Clinical guideline [CG159] [nice.org.uk/guidance/cg159](http://nice.org.uk/guidance/cg159)

National Institute for Health and Clinical Excellence (2012) Drug use disorders in adults. Quality Standard.

National Institute for Health and Clinical Excellence (2005) Post-traumatic Stress Disorder: Management. Clinical Guideline (CG26) [nice.org.uk/guidance/cg26](http://nice.org.uk/guidance/cg26)

National Institute for Health and Clinical Excellence (2005) Obsessive-compulsive disorder and body dysmorphic disorder: treatment. Clinical guideline [CG31] [nice.org.uk/guidance/cg31](http://nice.org.uk/guidance/cg31)

BAP guidelines Baldwin DS et al. *Journal of Psychopharmacology* 2014, Vol. 28(5) 403–439.

## Key messages

- Epilepsy should be screened for at the first-stage health assessment.
- Anti-epileptic drugs (AEDs) prescribed in the community should be continued in prison.
- Some anti-epileptic drugs (AEDs) have sedating, anxiolytic or euphoric side effects and are at risk of diversion or abuse.
- If there is doubt about the diagnosis of epilepsy or concerns that AEDs are being abused, a specialist neurology opinion should be requested to confirm diagnosis and optimise prescribing that is suitable and safe for the prison environment.
- Buccal midazolam is recommended by NICE as first-line treatment of seizures that are prolonged or repeated. Rectal diazepam should be used if this is not available.
- MHRA guidance has been issued about the risks of sodium valproate in pregnancy to the foetus and the importance of avoiding prescribing this medicine to women capable of becoming pregnant.
- When prescribing anti-epileptic treatment to women of child-bearing age prescribers should consult carefully with the *BNF* and prescribe with caution.
- Sodium valproate, carbamazepine and lamotrigine are used to treat bipolar disorder. Caution should be exercised when giving these treatments to women of child-bearing age.

## Types of seizure

Seizures fall into three main categories: epileptic, provoked and non-epileptic. Abnormal electrical brain activity occurs in both epileptic and provoked seizures. Epileptic seizures may occur as a result of brain injury (for example head injury, stroke, meningitis, primary or secondary malignancy) or an inherited condition although sometimes no cause can be found. Epilepsy often begins in childhood.

Provoked seizures occur in response to specific reversible conditions (for example alcohol withdrawal, substance misuse, hypoglycaemia).

Non-epileptic seizures are not associated with abnormal brain activity. They may occur in vasovagal syncope, muscular disorders, psychological conditions or as part of a picture of drug-seeking behaviour (in an attempt to gain sedating medication, for example benzodiazepines).

The prevalence of epilepsy is around 1% in both the general population and in prisons, however, it occurs much more commonly in people with learning disabilities (up to one in three).

### Prescribing anti-epileptic drugs

NICE guidelines (2012) and the *BNF* provide clear recommendations on the use of anti-epileptic drugs (AEDs), which should normally be initiated by a specialist, after investigation and following more than one seizure. Different medications are recommended based on the type of epilepsy syndrome or seizure type (if an epilepsy syndrome cannot be identified). Occasionally, if seizure frequency is high, it may be necessary to start treatment (in line with NICE, *BNF* and MHRA recommendations) while awaiting a neurologist opinion. AEDs are not recommended for provoked or non-epileptic seizures.

Some anti-epileptic drugs have sedating, anxiolytic or euphoric side effects and are at risk of diversion or abuse in prison. It is therefore important to confirm any reported epilepsy diagnosis and details of any treatment prescribed in the community prior to initiating regular medication. AEDs at risk of abuse should usually be taken under supervision although some prisons may choose to offer medication in-possession with checks for concordance.

A referral to a neurologist is recommended if a prisoner has a witnessed, unprovoked first seizure. When a patient is prescribed an AED without evidence of a diagnosis of epilepsy having clearly been established, specialist referral to corroborate the diagnosis and treatment is recommended. Clonazepam, pregabalin and gabapentin are commonly misused by drug-seeking patients who do not have epilepsy.

MHRA guidance has been published about the risks of sodium valproate to foetal development when taken in pregnancy, therefore all valproate prescribing should be avoided in women who have child-bearing potential, if at all possible.

Guidance also describes the indications for prescribing anti-epileptic drugs by brand and switching between generic products (category one brands not interchangeable; category three suitable for generic prescribing but consider patient preference) as well as the risk of respiratory depression with gabapentin.

NICE guidance recommends the use of buccal midazolam as first-line treatment of seizures that are prolonged (more than five minutes) or repeated (more than three in one hour). Rectal diazepam is recommended if buccal midazolam is unavailable. It is important to be aware that prisoners may have non-epileptic seizures in order to obtain benzodiazepine medication.

Some prisoners may wish to stop their epilepsy medication if they experience unacceptable side effects or if they have been seizure-free

for a long period. Threats to stop anti-epileptic medication may also be made as part of a pattern of maladaptive behaviour. Withdrawal of any medicine prescribed for epilepsy should be undertaken by a specialist (or following specialist guidance) and it should be gradual (over two to three months or up to six months for barbiturates or benzodiazepines) in order to prevent rebound seizures. If it has been established that high-risk AEDs are being taken without a diagnosis of epilepsy or other clinically recognised indication, a multidisciplinary team decision should be taken, which involves the patient, to initiate tapering of medication with close monitoring and adequate support.

### Recommended drugs

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Carbamazepine</b>	100mg – 2g in divided doses	<p>First-line: simple and complex focal seizures, generalised tonic-clonic seizures. Adjunctive: focal seizures</p> <p>Not recommended: tonic, atonic, myoclonic and absence seizures.</p> <p>Category 1: Prescribe by brand.</p> <p>Caution in cardiac disease, history of skin or haematological reactions, closed angle glaucoma. MR preparations reduce risk of side effects.</p> <p>Available in liquid form.</p> <p>Carbamazepine is licensed for the prophylaxis of bipolar disorder unresponsive to lithium <i>[Amber Classification]</i></p>
	<b>Sodium valproate: men</b>	600mg – 2.5g in divided doses	<p>First-line: atonic and tonic seizures.</p> <p>Recommended: primary generalised tonic-clonic, focal, absence and myoclonic.</p> <p>Side effects include hepatotoxicity, aggression, confusion, suicidal ideation.</p> <p>Monitoring: FBC before starting treatment and surgery; liver function before starting treatment and in first six months. Category 2.</p> <p>Available in liquid form.</p> <p>Valproic acid is licensed for the treatment of bipolar disorder <i>[Amber Classification]</i>.</p>
	<b>Sodium valproate: women</b>		<p>MHRA guidance has been published about the risks of sodium valproate to foetal development when taken in pregnancy, therefore all valproate prescribing should be avoided in women who have child-bearing potential, if at all possible.</p>

## Recommended drugs contd

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Lamotrigine</b>	25–500mg 1–2 divided doses	<p>First-line: focal seizures, generalised tonic-clonic seizures.</p> <p>Adjunctive: focal, generalised tonic-clonic (atonic, tonic seizures – unlicensed).</p> <p>Not recommended: myoclonic seizures.</p> <p>May exacerbate Parkinson’s disease.</p> <p>Side effects include aggression and agitation.</p> <p>Risk of serious skin reactions and blood disorders.</p> <p>Category 2. Available in dispersible tablets.</p> <p>Not widely abused.</p> <p>Lamotrigine is licensed for the treatment of bipolar disorder [<i>Amber Classification</i>].</p>
	<b>Levetiracetam</b>	250mg – 3g in divided doses	<p>Monotherapy and adjunctive: Focal and generalised seizures.</p> <p>Side effects include gastrointestinal, aggression, irritability, anxiety, depression.</p> <p>Suicide reported.</p> <p>Category 3: Brands interchangeable but consider patient preference.</p> <p>Available in liquid form. Not widely abused.</p>
	<b>Ethosuximide</b>	500mg – 2g in divided doses	<p>First-line: absence seizures.</p> <p>Adjunctive: atypical absence seizures.</p> <p>Also licensed for myoclonic seizures.</p> <p>Category 3: Brands interchangeable but consider patient preference.</p> <p>Gastrointestinal side effects common. Avoid in acute porphyrias. Available in liquid form.</p>
	<b>Phenytoin</b>	150–500mg	<p>Indications: Tonic-clonic and focal seizures; prevention or treatment seizures during or following neurosurgery or severe head injury.</p> <p>Not recommended: myoclonic and absence seizures.</p> <p>Narrow therapeutic window; requires monitoring and good compliance.</p> <p>Skin, gum and blood abnormalities.</p> <p>Category 1: Prescribe by brand.</p> <p>Available in liquid form.</p>
	<b>Topiramate:</b> <i>men</i>	25–500mg in divided doses	<p>Monotherapy and adjunctive: Focal and generalised seizures.</p> <p>Side effects include gastrointestinal, aggression, agitation, anxiety, depression, suicidal ideation, nephrolithiasis.</p> <p>Category two. Not widely abused.</p>

## Recommended drugs contd

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Topiramate:</b> <i>women</i>		Risk to foetal development when taken in pregnancy: increased risk cleft palate – first trimester. Prescribing should be avoided in women who have child-bearing potential, if at all possible. (as in NICE/BNF guidance).
	<b>Zonisamide:</b> <i>men</i>	100mg (50mg adjunctive) – 500mg	Monotherapy: focal seizures with or without secondary generalisation in newly diagnosed epilepsy. Adjunctive: refractory focal seizures with or without secondary generalisation. Side effects include gastrointestinal, weight loss, agitation, confusion, insomnia, psychosis, depression, memory impairment. Category 2. Avoid abrupt withdrawal. Not widely abused.
	<b>Zonisamide:</b> <i>women</i>		Risk to foetal development when taken in pregnancy and prescribing should be avoided in women who have child-bearing potential, if at all possible. (as in NICE/BNF guidance)
	<b>Gabapentin</b>	300mg – 4.8g 3 divided doses	<i>Not recommended in prison due to high risk of abuse and diversion.</i> Risk of respiratory depression. Refer to neurologist for consideration of alternative treatment if prescribed as monotherapy. Adjunctive: Focal seizures with or without secondary generalisation. Not recommended: tonic, atonic, myoclonic and absence seizures. Category 3: Brands interchangeable but consider patient preference.
	<b>Pregabalin</b>	25–600mg in divided doses	<i>Not recommended in prison due to high risk of abuse and diversion.</i> Refer to neurologist for consideration of alternative treatment if prescribed as monotherapy. Adjunctive: Focal seizures with or without secondary generalisation. Not recommended: tonic, atonic, myoclonic and absence seizures. Avoid abrupt withdrawal (taper over at least one week). Category 3: Brands interchangeable but consider patient preference. Available in liquid form.

## Recommended drugs contd

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Clonazepam</b>	0.5–8mg	<i>Not recommended in prison due to high risk of abuse and diversion.</i> Indication: myoclonic and refractory absence seizures. Effectiveness may decrease after weeks/ months. Side effects include memory loss, confusion, ataxia, dependence, poor concentration Category 2.
	<b>Clobazam</b>	20–60mg	<i>Not recommended in prison due to high risk of abuse and diversion.</i> Adjunctive: Tonic-clonic and refractory focal seizures. Side effects include memory loss, confusion, ataxia, dependence, aggression, muscle weakness. Category 2.
	<b>Phenobarbital</b>	60–180mg	<i>Not recommended in prison. High risk of abuse and diversion due to sedative effects.</i> Indications: Tonic-clonic and focal seizures. Category 1: Prescribe by brand.

### References

Fazel S, Vassos E, Danesh J. Prevalence of epilepsy in prisoners: systematic review. *British Medical Journal* 2002; 324: 1495.

[bmj.com/content/324/7352/1495.full](http://bmj.com/content/324/7352/1495.full)

National Institute for Health and Care Excellence (2016) Physical health of people in prison. NICE guideline (NG57) [nice.org.uk/guidance/ng57](http://nice.org.uk/guidance/ng57)

National Institute for Health and Care Excellence (2017) Health of people in the criminal justice system pathway. [pathways.nice.org.uk/pathways/health-of-people-in-the-criminal-justice-system](http://pathways.nice.org.uk/pathways/health-of-people-in-the-criminal-justice-system)

Joint Formulary Committee. *British National Formulary* (online) London: BMJ Group and Pharmaceutical Press [bnf.nice.org.uk/treatment-summary/epilepsy.html](http://bnf.nice.org.uk/treatment-summary/epilepsy.html)

National Institute for Health and Clinical Excellence (2012; last updated 2016) Epilepsies: diagnosis and management. Clinical guideline [CG137] [nice.org.uk/guidance/cg137](http://nice.org.uk/guidance/cg137)



Medicines and Healthcare products: Regulatory Agency Guidance (2016; update September 2017). Toolkit on the risks of valproate medicines in female patients. [gov.uk/government/publications/toolkit-on-the-risks-of-valproate-medicines-in-female-patients](https://www.gov.uk/government/publications/toolkit-on-the-risks-of-valproate-medicines-in-female-patients)

Medicines and Healthcare products. Regulatory Agency Guidance (2017). Antiepileptic drugs: updated advice on switching between different manufacturers' products. [gov.uk/drug-safety-update/antiepileptic-drugs-updated-advice-on-switching-between-different-manufacturers-products](https://www.gov.uk/drug-safety-update/antiepileptic-drugs-updated-advice-on-switching-between-different-manufacturers-products)

Medicines and Healthcare products: Regulatory Agency Guidance (2017). Gabapentin (Neurontin): risk of severe respiratory depression [gov.uk/drug-safety-update/gabapentin-neurontin-risk-of-severe-respiratory-depression](https://www.gov.uk/drug-safety-update/gabapentin-neurontin-risk-of-severe-respiratory-depression)

# Psychoses

## Key messages

- Diagnosis and treatment is usually psychiatrist-led.
- Prescribe within licensed indications in primary care.
- Medication is less addictive than other classes of drugs.
- Misuse is recognised and related to sedative properties.
- Shared-care protocols are recommended between psychiatry and primary care.
- Physical health monitoring is paramount in patients with psychoses.
- Therapeutic drug monitoring is required for some of these medicines.
- Doses should be within *BNF* limits.
- NHS England has published a [briefing](#) about prescribing of mental health medicines to support a multidisciplinary approach.

## Antipsychotics

Antipsychotic drugs are principally licensed to treat psychoses such as schizophrenia, hypomania and paranoid psychosis. In some circumstances they are used in forensic psychiatry to treat personality disorder (ref NICE guidelines).

The original antipsychotics, also known as neuroleptics, and major tranquillisers include chlorpromazine, haloperidol and trifluoperazine. As well as being licensed for the treatment of psychoses they are also licensed for the treatment of anxiety and disturbed behaviour.

The atypical antipsychotics include olanzapine, risperidone, quetiapine, aripiprazole and clozapine. Quetiapine, olanzapine and other antipsychotic medicines misuse has been reported. The atypical antipsychotics have a more acceptable side-effect profile with patients than the neuroleptics, with fewer anticholinergic and extra-pyramidal side effects. They are more likely to cause weight gain and are more diabetogenic.

Patients taking antipsychotics should have their physical health closely monitored. Antipsychotic medication is generally only used to treat psychotic disorders. However, some clinicians use these medicines to treat severe anxiety disorders, behavioural disturbance and personality disorder. Primary care prescribers in secure settings are advised only to prescribe these treatments within their licence.

## Recommended drugs

Category	Drug	Prescribing notes and environmental considerations
	<b>Antipsychotic medication</b>	<p>Generally, these medications should be initiated by a psychiatrist, but when initiated by a primary care doctor, that doctor should have suitable experience or training and generally they should prescribe within licensed indications.</p> <p>Clozapine has special monitoring requirements and must be prescribed by a psychiatrist.</p> <p>Registration with the manufacturer's monitoring service is required for the prescriber and the dispensing pharmacy.</p>

# Neurodevelopmental disorders and narcolepsy

## Key messages

- Pharmacological treatment for these disorders should only be initiated following specialist recommendation.
- Concordance with treatment can be highly variable.
- Most treatments have significant abuse potential.
- The reported diagnosis of ADHD and Autistic Spectrum Disorder (ASD) is increasing for a number of possible reasons.

## Overview

Neurodevelopmental disorders include Attention Deficit Hyperactivity Disorder (ADHD), Autistic Spectrum Disorders (ASD) including Asperger's Syndrome and Autism, and Tourette's Syndrome. We also consider the treatment of narcolepsy and cataplexy in this chapter. ADHD and ASD are persisting disorders which are usually diagnosed in childhood. Children diagnosed with neurodevelopmental disorders often continue to have significant difficulties into adulthood. Some adults will therefore arrive in prison with current treatment, particularly for ADHD but also for Tourette's Syndrome. It is possible that ADHD and ASD may be suspected for the first time in adulthood or during imprisonment. In these cases, specialist diagnosis should be obtained prior to starting medication.

ADHD is usually treated with amphetamine-type drugs such as methylphenidate. Concordance is often variable. Although methylphenidate is licensed for the treatment of ADHD in children, only atomoxetine is licensed for the treatment of ADHD in adults.

ADHD treatments are open to abuse due to their stimulant properties. It is important that prescribing is corroborated at the earliest opportunity in patients who state that they have an established diagnosis and treatment when they arrive in prison, to minimise disruption to their care. Some patients choose to stop treatment in adulthood while others seek a diagnosis of ADHD in adulthood and request treatment for the first time. Evidence suggests that atomoxetine has less abuse potential than other medicines used to treat ADHD.

Expert assessment by a psychiatrist is recommended in cases where there is diagnostic uncertainty, or a new diagnosis is being considered. ADHD prescribing should be initiated by a psychiatrist who should continue to supervise and monitor treatment within a prison.

In prisons, ADHD medication should be given by supervised consumption as it has significant potential to be abused in the prison environment.

## Identification and referral of adults with ADHD

For adults with ADHD, drug treatment should be the first-line treatment (NICE 2018). Adults presenting with symptoms of ADHD in primary care or general adult psychiatric services who do not have a childhood diagnosis of ADHD should be referred for assessment by a mental health specialist trained in the diagnosis and treatment of ADHD (NICE 2018). It is not appropriate for primary care doctors to make an assumptive diagnosis and initiate a prescription of medication, and where that diagnosis is in doubt, good practice is the confirmation of the diagnosis. If the diagnosis cannot be confirmed, then a psychiatrist should be consulted in the decision to continue or discontinue any medication.

Adults who have previously been treated for ADHD as children or young people and present with symptoms suggestive of continuing ADHD should be referred to general adult psychiatric services for assessment (NICE 2018).

In cases where ADHD falls outside the scope of commissioned forensic in-reach services, patients should still have access to general psychiatric services and advice should be sought from community services if necessary.

## ADHD and substance misuse

Drug treatment for adults with ADHD who also misuse substances should only be prescribed by an appropriately qualified healthcare professional with expertise in managing both ADHD and substance misuse. For adults with ADHD and drug or alcohol addiction disorders there should be close liaison between the professional treating the person's ADHD and an addiction specialist (NICE 2018).

## Recommended drugs

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Methylphenidate</b>	10–100mg in divided doses	Specialist initiation. Significant abuse potential.
	<b>Atomoxetine</b>	500mcg per kilogram to 1.2mg per kilogram. Maximum 120mg daily in divided doses.	Specialist initiation.
	<b>Dexamfetamine</b>	10–60 mg in divided doses	Specialist initiation. Significant abuse potential.

### Narcolepsy and cataplexy

Modafinil is licensed for the treatment of excessive sleepiness associated with narcolepsy and cataplexy. It has become a popular medicine for its alerting properties which some patients report improves their brain functioning. It is often purchased illicitly via the internet. The prescribing of modafinil in prison is similar to ADHD medicines in that it should not be initiated for the first time without a specialist diagnosis and recommendation. In patients who enter prison reporting receiving regular prescriptions of modafinil these prescriptions should be corroborated with the prescriber and pharmacy.

### Recommended drugs

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Modafinil</b>	100mg (elderly) to 400mg	Specialist initiation. Significant abuse potential.

### Resources

National Institute for Health and Care Excellence (2018) Attention deficit hyperactivity disorder: diagnosis and management. NICE guideline [NG87] [nice.org.uk/guidance/ta98](https://www.nice.org.uk/guidance/ta98)

# Acute and persistent pain

## Key messages

- This chapter aligns with recommendations in the Opioids Aware resource and the NHS England Prison Pain Management Formulary.
- Non-pharmacological therapy is important in managing persistent pain.
- Use simple analgesia as first-line, only moving to opioids when this and non-pharmacological treatment has failed.
- Opioids have limited efficacy in persistent pain. Avoid doses of 120mg morphine or equivalent.
- Multidisciplinary collaboration is essential for complex cases, especially those with substance misuse and mental health comorbidities.

## Overview

In general, the management of pain within a secure environment should follow the same principles as the management of pain within the community. It is only specific medications and in some circumstances their formulations that may need a specific approach in secure environments.

It should be recognised that some patients may become anxious or depressed as a result of imprisonment which may affect their pain threshold. Complementary programmes and self-help courses which have a holistic approach with self-empowerment as a substantial part of the therapy may be particularly helpful in these cases. Therapists may be available in prisons to help with pain relief and lifestyle changes.

The management of palliative care in prisons is a rapidly developing area which presents important considerations for prison healthcare teams and prisons themselves. This is considered in a later [chapter](#).

Within prisons patients commonly request treatment for pain. Prescribers should be aware of the diversion potential and problems associated with analgesia abuse and dependence in prison. The main areas of concern are opioid-based analgesia and gabapentinoids.

Recent publications to support the management and prescribing for pain in secure environments which underpin the summary information provided in this document are:

- [Managing Persistent Pain in Secure Settings](#). PHE 2013.

- **Prison Pain Management Formulary and Implementation Guide.** NHS England 2015.
- **Changing patterns of substance misuse in adult prisons and service responses.** HMIP 2015.
- Faculty of Pain Medicine (2015) **Opioids Aware.**

Acute pain is usually of short duration and is associated with obvious tissue damage. The pain may range from mild to severe and the intensity of pain is usually related to the degree of injury. Acute pain is usually self-limiting, and medicines can be helpful for treating the pain as well as other interventions including immobilisation, bandaging and strapping.

Chronic or persistent pain is long-lasting (usually more than three months) and often includes back pain, arthritis or pain associated with nerve damage. The pain can begin following an injury (but persists after the injury has healed) but sometimes it is not clear how persistent pain started. Persistent pain is not usually a sign of ongoing tissue damage and the intensity of pain is not closely related to the degree of tissue injury. Persistent pain is difficult to treat, and medicines are only partially effective and do not help all patients.

Medicines should always be used as part of a wider treatment plan including advice on activity, and support in achieving improvements in quality of life. Cancer often causes both local and referred pain. Many patients report persistent pain following deep vein thrombosis and osteomyelitis, often as a consequence of drug-injecting.

### Acute pain

On first presentation of acute pain analgesia should be prescribed in a stepwise manner. Full dose paracetamol should be prescribed and supplemented with non-steroidal drugs (NSAIDs) unless contraindicated. Stepping down and ending the prescribing for acute pain indications once these are resolved is essential to prevent long-term use.

### Persistent pain

Medicines for persistent pain should always be used as part of a wider treatment plan including advice on physical activity or physiotherapy, sleep and support in achieving improvements in mental health and quality of life. Medicines don't work for all patients and will not usually make the patient pain-free. Medicines can help reduce the intensity of pain sufficiently that patients can do things that would otherwise be difficult.

Non-pharmacological treatments include:

- self-care (see [paintoolkit.org](http://paintoolkit.org) for some examples)
- physiotherapy



- transcutaneous electrical nerve stimulation (TENS)
- individualised or group physical activity programmes (e.g. in partnership with the gym team)
- cognitive behavioural therapy
- meditation-based techniques such as mindfulness.

In prisons, there are unique opportunities where facilities and support are available to provide multidisciplinary care for pain that avoids or complements the use of medicines. Examples include psychological or occupational therapies and access to specialised gym activities. Partnerships between prison and healthcare teams to deliver these opportunities are essential to providing a holistic approach to pain care that avoids the sole reliance on medicines.

For persistent pain, a sequential approach of simple analgesia is recommended, beginning with paracetamol or NSAIDs with a combination of these. The WHO analgesic ladder for cancer pain, in which strength and dose of medication is prescribed according to reported pain intensity, is not an appropriate tool to guide prescribing for persistent pain. Ibuprofen and naproxen are the recommended first-line choice of NSAID, followed by the second and third-line choices being selected as advised by local primary care formularies. Topical NSAIDs may be appropriate for some indications, but rubefacients, antirheumatics and capsaicin are not recommended.

Nefopam is no longer recommended for use. There is little evidence to support the use of nefopam over more commonly used non-opioid analgesics. Nefopam may have a place in the relief of persistent pain unresponsive to other non-opioid analgesics but is generally a last-line option, in exceptional cases. It can cause antimuscarinic side effects and should be used with caution in the elderly and in patients with symptoms of urinary retention and with other anti-muscarinic medication.

### **Safe use of opioids in secure environments**

There may be a small group of patients who require opioids for pain relief in secure environments to avoid leaving them in genuine pain due to under-treatment. However, this should be within a context of a multifaceted approach to their pain management, including non-pharmacological treatment. Extreme caution is needed in patients with a history of, or current, substance misuse.

In all cases opioid analgesia should be prescribed for as short a period as possible at the lowest effective dose.

Opioids Aware provides five key points to the safe use of opioids:

- Opioids are very good analgesics for acute pain and for pain at the end of life but there is little evidence that they are helpful for long-term pain.

- A small proportion of people may obtain good pain relief with opioids in the long-term if the dose can be kept low and especially if their use is intermittent (however, it is difficult to identify these people at the point of opioid initiation).
- The risk of harm increases substantially at doses above an oral morphine equivalent of 120mg/day, but there is no increased benefit.
- If a patient is using opioids but is still in pain, the opioids are not effective and should be discontinued, even if no other treatment is available.
- Chronic pain is very complex and if patients have refractory and disabling symptoms, particularly if they are on high opioid doses, a very detailed assessment of the many emotional influences on their pain experience is essential.

When considering switching between opioids, advice provided in the Opioids Aware resource should be considered.

### **Managing drug-seeking behaviour**

Dihydrocodeine, codeine and tramadol are misused both for their euphoric potential and their sedative effect and are very popular with heroin users, as they also alleviate opiate withdrawal. These medicines have well recognised abuse potential. They have acquired significant commodity value within prisons and their diversion and misuse puts vulnerable individuals at risk of coercive diversion. Clinicians who work within a prison should therefore be mindful of the risks to the wider prison population when prescribing opioid analgesia. Clinicians should actively avoid being drawn into collusion with a patient while maintaining treatment that is appropriate to the environment and in the patient's best interests.

Clinicians may encounter situations where a patient is inappropriately asking for opioids, or situations where an existing opioid prescription is being diverted to the wider prison population. In situations such as this it is advised that voluntary clinical urine drug testing using a detailed hospital laboratory analysis is undertaken. Where this is not possible Point-of-Care testing (POCT) kits for tramadol, buprenorphine, methadone and other illicit drugs are available and can be used as an alternative means of checking for compliance. Tramadol will not be detected by these POCT tests for 'opiates'.

The observation histories of third parties such as wing officers, nurses and gymnasium instructors may also be considered when making a balanced decision as to continuing an opioid analgesic in the context of reported pain or impaired function where there is clinical doubt about the use and indication for the treatment, without compromising a patient's confidentiality. This can allow for a more objective assessment of function

and improvement than that provided by the patient alone and is in the patient's best interests.

This risk to the wider prison population is reflected within prison service orders/instructions. PSO 3550 and PSI 45/2010 (archived) require that medicines subject to abuse, which includes Schedule 2–4 Controlled Drugs, should not be held in-possession and must be administered under supervised conditions. Clinicians can mitigate the diversion risk further by using alternative formulations of a medicine at high risk of diversion.

An example of this would be the prescription of liquid or effervescent medications to reduce the risk of diversion at supervised consumption. These alternative formulations may carry cost implications, but this should not form an undue barrier to providing them when wider risks of diversion are reduced. Soluble opiates may be less suitable in patients with hypertension and heart disease because of the high sodium content. Practical examples of how these issues have been tackled can be found in [Prison Pain Management Formulary Implementation Resources](#) (SPS 2016).

Prescribed opioids may also be used to mask the continued use of illicit opioids and therefore confound systems used by a prison, such as mandatory drug testing in reducing illicit drug use.

Codeine alone and in combination with paracetamol are the preferred weak opioids for use in secure settings. Conversion to a combination product with paracetamol may encourage adherence once an effective dose is established. The 15/500mg co-codamol preparation is not cost-effective.

Dihydrocodeine has historically been used within prisons as a detoxification treatment and continues to be used in police custody as symptomatic treatment. Dihydrocodeine is still widely abused. It is generally an inappropriate analgesic where individuals have a history of substance misuse, even if an individual has entered recovery.

### **Opioid analgesic medications**

Tramadol and morphine should only be used when weaker opioids have failed and within a multidisciplinary approach. There is no evidence of benefit from using oxycodone or tapentadol and a review to prescribe an alternative where possible is recommended.

Tramadol was initially considered to be safer and less addictive than existing opioids, but post-marketing evidence now shows that the drug possesses similar risks to the more traditional opioids, and also additional risks relating to its effect on other biochemical receptors including serotonin. In addition to mu-opioid receptor agonist action it also has action on CNS monoamine neurotransmitters. It is a Schedule 3

controlled drug but is exempt from Safe Custody requirements. Tramadol is the only opioid with long-term efficacy data. It is important however, for prescribers to take account of the potential risk in the event that prescribed tramadol is used in conjunction with additional illicitly acquired substances. Tramadol possesses SNRI-like properties and should not be co-prescribed with either SSRIs or SNRIs.

Nausea, dizziness and constipation are common side effects (although nausea and constipation may be less severe than with codeine); hallucinations, confusion and convulsions, drug dependence and withdrawal, have all been reported with tramadol at therapeutic doses. The Committee on Safety of Medicines (CSM) advises that treatment with tramadol should be short-term and intermittent, and caution is required with patients with a history of addiction or dependence. Caution is also required with patients with a history of seizures and those taking drugs that lower the seizure threshold.

A total daily dose of 60mg of morphine with *no* response suggests pain is unlikely to be opioid responsive. Doses of greater than 120mg oral morphine equivalent should not be used. The patient should be closely monitored for pain relief as well as for side effects, especially respiratory depression and constipation. Patients may require a regular laxative.

Analgesic patches have increasingly been used to control chronic and cancer-based pain but there have been significant safety concerns with their use resulting in the publication of a **[national safety alert by the MHRA](#)**. There are considerable risks in using these products in secure environments. Prison healthcare providers have experienced patients abusing the analgesic patch through 'sharing' the patch with others, or prisoners attempting to extract the active opioid from the patch. Patches which are non-matrix patches and therefore contain a reservoir of strong opiate medication are not appropriate for use within secure environments as diversion of the liquid presents a significant risk to individuals. The use of novel delivery methods of strong opioids, such as 'lollipops', presents a significant risk of abuse within prisons and should also be avoided.

The prescribing of fentanyl in any formulation is not recommended due to its toxicity.

The concerns with the safety within secure environments of non-oral opioids for persistent non-cancer pain has resulted in them being categorised as 'red' and prescribing should be avoided and restricted to exceptional cases only.

### Managing complex needs

Pain management in patients receiving opioid substitution therapy (OST) presents particular challenges. These patients have complex needs and therefore a team-based management approach with close monitoring and supervision in prison is recommended. In persistent pain optimising the dose of opioid substitution therapy is appropriate as well as using non-opioid interventions as adjuncts. In severe acute pain it may be justifiable to add in a short course of an additional opioid in addition to other non-opioid treatments and opioid substitution therapy. Patients with addiction experience the same, and potentially more, sources of pain than others. In addition, they may have previously self-medicated to attenuate their pain and psychological distress, and may also have poorer acceptance of non-pharmacological interventions for pain control. Persistent opiate misuse often alters pain thresholds and patients' ability to cope with pain.

Acute pain presenting in patients taking OST should be treated according to the analgesic ladder. Their maintenance OST dose may be insufficient to treat their acute pain. They may require a higher dose or the short-term prescribing of an additional opioid. The safety of combined opioid prescribing, or high dose prescribing should be carefully considered. Splitting the dose of methadone to twice daily for a short interval provides better pain relief than a single daily dose.

Chronic pain in patients with addiction problems should be managed collaboratively with a multidisciplinary approach. The treatment goals and decisions about the package of care should be carefully discussed with the patient and this should be properly documented and communicated with all clinicians involved. Detailed information to support clinicians can be found in national guidance.

Safe management of pain for such patients is underpinned by detailed assessment of the pain, of the addiction, and of any comorbid mental health problems, in the context of close communication between health and social care professionals, and patients.

The red medicines are those which are also categorised as red in the NHS England prison pain management formulary.

## Acute and persistent pain

### Recommended drugs: Simple analgesics and NSAIDs

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Paracetamol</b>	4g daily in divided doses	Effective first-line analgesic in acute pain. Ensure this is prescribed at maximum dose before escalating analgesia. Effervescent tablets have high sodium content (18.6mmol / tablet). Taking the maximum dose of paracetamol = 8g of sodium per day. Has an association with deliberate self-harm by overdose which should be considered in patients at risk of self-harm. Abuse potential low. Can be purchased over the counter in many prisons.
	<b>NSAIDs Ibuprofen, Naproxen</b>	Naproxen – 1g daily in divided doses	Prescribe at the lowest possible dose for the shortest period of time. Where possible, co-prescribing NSAIDs with full dose paracetamol is advisable before considering stronger analgesia.
	<b>Cox2 Inhibitors and other NSAIDs in line with CCG formulary</b>	Ibuprofen Adult: 1.6–2.4g in divided doses	Ibuprofen has lowest GI risk of standard NSAIDs. Prescribe gastro-protection in line with national guidance. Daily doses less than 1200mg are not associated with increased thrombotic risk. Use a second-line NSAID if ibuprofen/naproxen not effective or alternative needed for specific indications.
	<b>Topical analgesics: Ibuprofen, Piroxicam, Algesal</b>		Prescribe appropriate quantity: topical application of large amounts can result in systemic effects.
	<b>Diclofenac</b>	150mg daily in divided doses	To be avoided due to safety concerns; injectable formulation can be used for short-term, severe, acute episodes only.
	<b>Nefopam</b>	30–270mg in divided doses	Limited evidence base of effectiveness. No longer recommended as an alternative prior to opioid use.
	<b>Topical: rubifacients antirheumatics capsaicin</b>		Evidence base does not support their use. All formulations. (See <i>BNF</i> ) Harm associated with rubefacient products coming into contact with eyes.

### Recommended drugs: Opioid analgesics – see *BNF*

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Codeine</b>	Maximum 240mg per day in divided doses	
	<b>Co-codamol 8/500mg and 30/500mg</b>  <b>Effervescent products</b>	Up to 8 tablets daily in divided doses	<p>Lower dose (8/500) may be sufficient in frail patients and as a starting dose for opioid-naive patients.</p> <p>Can be requested by prisoners to mask illicit opioid use – will still test positive for opioids following MDT.</p> <p>Local risk assessment determines the place of effervescent preparations in care pathways. These can be helpful for reducing diversion risk as well as supporting patients who are unable to swallow solid dosage forms. Consideration should be given to the impact of supervised administration as extra time will be taken as the tablets dissolve.</p>
	<b>Dihydrocodeine DHC <i>sustained release only</i></b>	Maximum 240mg per day in divided doses	<p>Limit maximum dose to 120–180mg daily. Higher doses offer some additional pain relief but may cause more nausea and vomiting. 120–180mg daily is equivalent to 12–18mg oral morphine daily.</p> <p>Reserved for patients where opioid is required and not IP and in other clinical circumstances where codeine is not suitable. Additional caution in those with opioid addiction.</p>
	<b>Tramadol</b>	Maximum of 400mg daily in divided doses	<p>Long-acting preparations recommended for persistent pain.</p> <p>Should be administered under supervision (not in-possession).</p> <p>Where facilities don't allow twice daily dosing, use the 24-hr preparation.</p> <p>Tramadol possesses SNRI-like properties and should not be co-prescribed with either SSRIs or SNRIs.</p>

## Acute and persistent pain

### Recommended drugs: Opioid analgesics contd

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Morphine</b>	5–10mg at 4-hourly intervals adjusted according to response	<p><i>Stop</i> weak opioids prior to addition of strong opioid as the effect of taking together is likely to be additive. Titration must be slow with regular review. Maintain paracetamol / NSAIDs at maximum dose.</p> <p>For persistent pain long-acting preparations should be used. A total daily dose of 60mg of morphine with <i>no</i> response suggests pain is unlikely to be opioid responsive. Doses of greater than 120mg oral morphine equivalent should not be used.</p> <p>Immediate release products are reserved for acute or breakthrough pain use only. Non-IP use only except in exceptional circumstances (e.g. in palliative care for breakthrough pain).</p> <p>The patient should be closely monitored for pain relief as well as for side effects, especially respiratory depression and constipation. Patients may require a regular laxative.</p>
	<b>Oxycodone</b>	Adults 5mg every 4–6 hours. Maximum 400mg per day.	No evidence of superior efficacy or fewer side effects than morphine.
	<b>Methadone</b>	5–10mg up to 4 times per day. Maximum 120mg daily.	<p>Cochrane review found very limited evidence of the effectiveness of methadone for chronic non-cancer pain.</p> <p>Not recommended for pain in secure environments except when pain emerges when methadone dose is reduced as part of substance misuse dose tapering.</p>
	<b>Transdermal opioid patches and fast-acting opioid formulations (e.g. fentanyl lollipops)</b>		<p>Transdermal administration of opioids or fast-acting products do not confer advantages compared to the oral route, except for specific situations when managing pain in patients who are unable to swallow. (See <i>BNF</i>)</p> <p>Transdermal patches are very divertible and there is a large risk of overdose in opioid-naive patients. This clinical risk outweighs any operational advantage in reducing medicines administration sessions when using these formulations.</p>



### References

PHE (2013) [Managing Persistent Pain in Secure Settings](#)

NHS England (2015/17) [Prison Pain Management Formulary and Implementation Guide](#)

HMIP (2015) [Changing patterns of substance misuse in adult prisons and service responses](#)

Faculty of Pain Medicine (2015) Opioids Aware. [rcoa.co.uk/faculty-of-pain-medicine/opioids-aware](http://rcoa.co.uk/faculty-of-pain-medicine/opioids-aware)

Prison Service Instructions. [justice.gov.uk/offenders/psis](http://justice.gov.uk/offenders/psis)

# Neuropathic pain

## Key messages

- This chapter aligns with recommendations in the Opioids Aware resource and the NHS England Prison Pain Management Formulary.
- As for persistent pain, non-pharmacological interventions with particular emphasis on addressing the psychology of pain and coping mechanisms should be explored.
- Medications are used to treat neuropathic pain but fewer than a third of patients will respond to any given drug – discontinue a medicine that is ineffective.
- Pregabalin and gabapentin (soon to be scheduled CDs) are highly sought after because of their use in enhancing the effects of opioids and their own inherent abuse potential – avoid initiating them in prison and proactively review people prescribed them.
- Multidisciplinary collaboration is essential for complex cases, especially those with substance misuse and mental health comorbidities.

## Overview

The international association for the study of pain defines neuropathic pain as “pain arising as a direct consequence of a lesion or disease affecting the somatosensory system”. Common examples of neuropathic pain syndromes include post-herpetic neuralgia, diabetic neuropathy, nerve entrapment syndromes, phantom limb pain, spinal cord injury, prolapsed intervertebral disc, stroke, pain symptoms in multiple sclerosis and Parkinson’s disease.

There is no standard diagnostic procedure for diagnosing neuropathic pain, but some tools have been identified to support diagnosis (Bennett *et al.*). The essential elements of the process are to identify painful symptoms, altered sensation and a clinical history that all match a neuro-anatomical or dermatomal pattern. Examination should identify altered sensation in the painful area. Numbness is often present in the dermatomal area and exaggerated painful response to pinprick testing.

## Treatment

As for persistent pain, non-pharmacological interventions with particular emphasis on addressing the psychology of pain and coping mechanisms should be explored. Medications are used to treat neuropathic pain but fewer than a third of patients will respond to any given drug. Different

classes of drug have distinct and relevant mechanisms of action, so if the first class tried does not work it is helpful to stop it and try an alternative.

NICE guidance refers to the use of gabapentinoids in neuropathic pain. It is important to be aware that these drugs may be used in the community as currency to obtain illicit drugs such as heroin and crack. In the prison setting, pregabalin and gabapentin are highly sought after because of their use in enhancing the effects of opioids and their own inherent abuse potential. Given the diversion risk in secure settings, and planned reclassification of these medicines as controlled drugs, their use should be limited and if possible avoided in prison. Evidence continues to emerge for the harm caused by gabapentinoids and they are increasingly identified as a factor in drug-related deaths. They should not therefore be prescribed to patients with a history of Class A substance misuse.

If a person entering custody is an active user of Class A substances and states that they are currently prescribed gabapentinoids in the community, they should be advised that, if the script is confirmed through medicines reconciliation, the gabapentinoid will be prescribed at an appropriate dose but that a multidisciplinary medicines review will be arranged with a view to reducing and stopping the gabapentinoid, unless it can be confirmed that it has been prescribed by a consultant neurologist, in line with NICE guidance, as an adjuvant treatment for epilepsy.

If a person enters custody, stable on an OST script and not actively using Class A substances and states that they are currently prescribed gabapentinoids in the community, they should be advised that, if the script is confirmed through medicines reconciliation, the prison substance misuse team will contact their community drug support team for confirmation of a sustained abstinence from Class A drugs. If this is confirmed, the gabapentinoid will be prescribed at an appropriate dose and a multidisciplinary medicines review will be arranged with a view to assessing whether or not there is current clinical indication to continue the gabapentinoid or whether safer more suitable treatment can be offered, in which case the gabapentinoid will be reduced and stopped. In all cases, people entering custody should be reassured that there will be an active multidisciplinary approach to their pain management.

In order to minimise withdrawal symptoms on stopping gabapentinoid drugs, gradual tapering (by a maximum daily dose of 50–100mg/week of pregabalin or a maximum of 300mg every four days of gabapentin) is recommended in the Drug misuse and dependence: UK guidelines for clinical management (2017).

Some of the difficulties with the treatment of neuropathic pain arise from inappropriate use of neuropathic analgesia for non-neuropathic conditions or from sub-optimal assessment by the initiating clinician leading to unnecessary prescribing. This is often fuelled by patient

demand in illicit drug-using populations. There is no clinical indication for the use of gabapentin and pregabalin for non-specific mechanical back pain, which is often encountered in patients in prisons. Such prescribing causes problems for clinicians trying to withdraw an inappropriately prescribed drug in a different establishment. In this clinical situation physical and complementary therapies such as physiotherapy or remedial gym should be considered.

Furthermore, if patients are referred for a specialist opinion, GPs should be aware of the importance of providing an appropriate history of addictive behaviour in patients referred to pain clinics who are at risk of being prescribed these drugs inappropriately.

As with analgesia guidance, information obtained from wing, gym and healthcare staff may be helpful in determining an independent assessment of the patient's mobility to differentiate from a desire to obtain medication for trading or illicit use.

### Recommended drugs

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Duloxetine</b>	First-line. 60–120mg.	Minimal abuse potential. Licensed for use in diabetic neuropathy. May be beneficial in other forms of neuropathy.
	<b>Amitriptyline</b>	First-line (unlicensed indication). Recommend 10–25mg. Some patients benefit from higher doses.	TCAs have significant commodity value as a result of their sedative effects. Advantage of once daily dosing. Dose titrated from 10mg. Recommend as not in-possession. ECG check needed where patients are on other medicines that prolong the QT interval (e.g. methadone or antipsychotics).
	<b>Carbamazepine</b>	To be offered as initial treatment for trigeminal neuralgia. 100mg – 1.6g daily in divided doses.	Carbamazepine reduces the plasma concentration of methadone; carbamazepine reduces the effects of tramadol. Doses of methadone and tramadol need to be adjusted to clinical requirement. Carbamazepine interacts with many medicines; clinicians should refer to the SPC for details.
	<b>Tramadol</b>	Fourth-line. Previous Tramadol.	Consider only for refractory cases of neuropathic pain of confirmed origin. Tramadol possesses SNRI-like properties and should not be co-prescribed with either SSRIs or SNRIs.

## Recommended drugs contd

Category	Drug	Daily dose range	Prescribing notes and environmental considerations
	<b>Nortriptyline</b>	Recommend 10–25mg. Some patients benefit from higher doses.	Not cost-effective. Only in exceptional cases.
	<b>Gabapentin</b>	300mg – 3.6g in divided doses	Avoid initiation and review and reduce current prescriptions where possible. Gabapentin and pregabalin should be prescribed for their licensed indications only. Both can be prescribed twice daily to facilitate supervised consumption. High risk for trading and diversion.
	<b>Pregabalin</b>	150–600mg daily in divided doses	
	<b>Lidocaine patches</b>		Specialist use only. (See <i>BNF</i> )
	<b>Opioid patches</b>		No evidence for use. (See <i>BNF</i> ) High risk of abuse and harm.

**References**

Freyenhagen R, Bennett MI. Diagnosis and management of neuropathic pain. *BMJ* 2009; 339:b3002 (12 August) [bmj.com/content/339/bmj.b3002.extract](http://bmj.com/content/339/bmj.b3002.extract)

Bennett MI, Attal N, Backonja MM *et al.* **Using screening tools to identify neuropathic pain.** *Pain.* 2007;127(3):199–203

NHS England 2015 **Prison Pain Management Formulary.**

NICE, **Neuropathic pain: the pharmacological management of neuropathic pain in adults in non-specialist settings – CG173.**

NHS England: **Guidance for the Handling of Tramadol in Health and Justice Residential Sites** (2014).

PHE 2014 – **Advice for prescribers on the risk of the misuse of pregabalin and gabapentin.**

PrescQIPP – **Pregabalin in neuropathic pain** (2014).

Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group (2017) **Drug misuse and dependence: UK guidelines on clinical management.** London: Department of Health.

# Palliative care

## Key messages

- It is essential that prisons are able to provide compassionate and holistic palliative care.
- Additional community and third-sector resources such as specialist palliative care clinicians and Macmillan nurses should be utilised wherever possible when treating palliative patients.
- Palliative care medicines are potent and can be misused, especially within a prison setting. However, they should not be underutilised in palliative care patients who need them.
- Good medicines governance is important in utilising palliative care treatments safely and effectively in prisons.

## Philosophy

Significant improvements have been made over the last decade in the earlier identification of palliative care patients and the holistic delivery of comprehensive treatment to them. Dedicated palliative care skills have been effectively promoted by third-sector organisations. This has helped facilitate good palliative care in the community provided by community teams working in partnership with general practice, to improve end-of-life experience for patients and carers. It is important that this enhanced philosophy is recognised and reproduced in prisons.

The PPO and Coroners under their obligation to investigate all deaths in prison encounter cases on occasions where a terminal diagnosis has been made at a very late stage and the planning and delivery of end-of-life care has been open to criticism in prisons. It is likely that had these deaths occurred in the community there would not have been an investigation, particularly where death was expected. Prison healthcare teams must recognise the significance of all deaths in custody being investigated and scrutinised in detail by at least two organisations. Such scrutiny should lead to improvements in palliative care delivery in prisons, however, systematic, commissioned improvements should be the main driver for system change in the diagnosis and care of the dying.

The prison population is ageing. In 2005 6% of prisoners were aged over 50, rising to 12% in 2016 at which time there were 4,582 prisoners in England aged over 60. This is consistent with the fact that the UK population is growing older, but also reflects improved detection of certain types of crime as a result of scientific developments such as

DNA sequencing, as well as the massive expansion of the internet. The population of older prisoners who have committed sex offences has grown substantially in English prisons in the last decade.

An increasing older prison population presents important health delivery challenges related to chronic diseases, cancer, frailty, multiple comorbidity and end-of-life care.

A key requirement of the prison healthcare team is the early recognition of palliative conditions. Advanced cancer is traditionally the easiest palliative condition to recognise. However, frailty, heart failure, chronic liver disease, renal failure, progressive neurological disease, severe chronic lung disease, immunological and rheumatological diseases should not be overlooked in considering palliative care planning.

There have been several workstreams in the community aimed at improving palliative care. These include the Gold Standards Framework which seeks to identify patients in the last year of life, as well as the now discredited Liverpool Care Pathway which aimed to provide good care in the last days of life. In the community regular MDT (multidisciplinary team) meetings are held in order to identify and plan care for patients in their last year of life. It is recommended that prison healthcare teams emulate good practice in establishing palliative care infrastructure.

The Dying Well in Custody Charter and self-assessment tool provides a framework for good practice which is nationally recognised and supported by NHSE, HMPPS and the PPO. It aligns with six national ambitions:

- Each person is seen as an individual.
- Each person gets fair access to care.
- Comfort and wellbeing are maximised.
- Care is co-ordinated.
- All staff are prepared to care.
- Each community is prepared to help.

A set of standards describe best practice which underpins the six ambitions, serving as guidelines uniquely contextualised to delivering palliative and end-of-life care in prison. A self-assessment tool has been designed which supports staff in implementing the Charter and producing locally relevant action plans.

Some prisons and secure hospitals have created dedicated palliative care accommodation to best serve the needs of a dying patient.

NICE describes 'End of life care for adults' and 'Care of dying people in the last days of life', and differentiates between these closely-related topics.

Good palliative care planning includes evaluation of the patient's physical, psychological/emotional, social and spiritual needs. The appropriateness of considering and organising a 'Do Not Resuscitate Order' (DNAR) should be discussed. Anticipatory care medication should be organised. Third-sector expertise such as MacMillan Cancer Support may be valuable. Some care systems provide electronic palliative care registers to improve seamless end-of-life care.

### Physical care

The skilful management of pain, nausea, secretions, constipation, fatigue, anaemia, itch, hiccups, drug side effects and a panoply of physical health symptoms, through evaluation and treatment, forms the basis of good physical palliative care. NICE recommends that patients in their last days of life have their hydration status addressed on a daily basis.

The following medicines are recommended as being prescribed in the following formulations to patients in or approaching their final days of life:

- Morphine sulphate injection 10mg or 30mg per ml: 2.5–5 mg two-hourly as required IM
- Midazolam 1mg/ml injection: 2.5mg two-hourly prn IM
- Levomepromazine: 6.25mg two-hourly prn IM
- Hyoscine: 10mg six-hourly prn IM

The opioids morphine and diamorphine are the mainstay of pain relief in end-of-life care. Midazolam is administered primarily for its sedative effect and is a benzodiazepine. It also has valuable amnesic properties and is an anti-epileptic, which is helpful in cerebral primary and secondary malignancy and terminal stroke disease where fitting is problematic. Levomepromazine has antiemetic, hypnotic and analgesic properties (NICE). Hyoscine reduces secretions in several clinical situations including palliative care.

Morphine, midazolam, levomepromazine and hyoscine are classified as amber drugs in this guide as they are not normally prescribed other than in the very specific situation of end-of-life care. They are highly abuseable unless their prescribing, safe storage and supervised administration is rigorously maintained. They must be used with great caution.

Seeking the advice of community-based palliative care teams is recommended in situations when prison healthcare teams do not have the confidence or certainty to expertly manage a palliative or end-of-life patient's care.



Some patients will benefit from the administration of palliative care medication via a syringe driver. This should be available within a prison providing that the administration of the treatment is closely supervised and the risk of diversion of the medication is mitigated.

### **Psychological and emotional care**

Coping with the expectation of dying can be enormously difficult for many patients. Dying in custody may present additional emotional challenges which may be related to the prison environment as well as to the offending behaviour and the impact which all of these events have upon the wider family. The psychological and emotional complexity of dying in prison should be carefully explored and managed by the prison healthcare team. Where possible more specialist palliative care psychological support should be utilised. The third sector have an excellent record for providing such support.

Many prisoners have mental health problems. These may be exacerbated as a result of a palliative diagnosis, however, mental illness may also present following diagnosis. The prison healthcare team should offer the appropriate assessment of mental illness in palliative care patients and facilitate its treatment.

Where possible family liaison officers should be available to facilitate the engagement and support for the family and relatives.

### **Social care**

There has been progress in understanding the importance of addressing the social care needs of prisoners. An older prison population has placed greater emphasis on social care.

Prisoners with a palliative diagnosis should be actively involved in their care planning where they are willing or able to do so. Issues such as the place of care and death and DNAR should be discussed. Ideally the Prison Service would release prisoners who wished to die in the community before or as they approached their final days. Release on Temporary Licence (ROTL) is often difficult to facilitate.

Other social needs such as cell location and adaptation and the availability of special accommodation for the dying prisoner should be considered.

The appropriate engagement of fellow prisoners as friends and buddies should be considered in supporting the dying prisoner, while supporting the emotional needs of these carers in such situations.

Relevant legal and financial issues should be considered in a palliative care patient.

### Spiritual care

Our prisons' population represents a massively diverse range of cultural and personal beliefs. Most world religions are practised in our secure environments. Prisons have well-recognised religious leaders through the chaplaincy service and should be easily able to support the world's leading faiths, which include Christianity, Islam, Judaism, Hinduism, Buddhism and Sikhism. Within these faiths different denominations should be recognised and accepted.

Many prisoners do not have an identified faith and may be agnostic, atheist or not knowingly engaged in spiritual issues.

Whatever the patient's beliefs or lack of beliefs the prison healthcare team should evaluate the spiritual care of the palliative patient. Where possible and practicable any special religious requirements should be respected in the later stages of dying.

Expert third-sector and spiritual resources should be utilised when planning the care of the dying patient, with the patient themselves remaining at the centre of care planning.

### References

Department of Health. End of Life Care Strategy: quality markers and measures for end of life care. London: Department of Health, 2009.

[https://webarchive.nationalarchives.gov.uk/20130104173044/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_101681](https://webarchive.nationalarchives.gov.uk/20130104173044/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_101681)

London Clinical Networks, 2016, Improving the quality of care in the last days of life: A practical guide to getting the medications right.

**Macmillan Cancer Support.**

EPaCCS – Connected Notts.

Dying Well in Custody Charter. [endoflifecareambitions.org.uk/resources/dying-well-custody-charter/](http://endoflifecareambitions.org.uk/resources/dying-well-custody-charter/)

# Additional safer prescribing issues



## Successful prescribing

Prescribing medicines safely in any context is a clinical skill and responsibility which should not be underestimated. Medical knowledge supported by further training, experience, guidelines, teamworking, supervision and reflection are essential components of successful prescribing. Drug errors commonly occur. Prescribers supported by colleagues including pharmacists endeavour to minimise the harm caused by the prescribing of medicines, whether or not the prescribing is accurate and appropriate or sub-optimal or in error.

Prescribing is a hugely complex discipline and prescribers have a professional responsibility to prescribe safely and effectively. They should consider a wide range of clinical issues before prescribing an individual medicine to a patient. As medicine becomes more complicated successful prescribing requires a commitment to continued professional development and learning.

In many conditions prescribing may not be the preferred intervention. It is important that wherever possible patients are included in the prescribing decisions being made about them. Electronic repeat prescribing systems can be time-saving and efficient. They should not be used in a way which bypasses the thorough checking of each prescription for its appropriateness, safety and efficacy. Additionally, in prison when signing electronic prescriptions for psychotropic medicines the prescriber should be aware of any non-electronic controlled drug prescriptions which the patient may be in receipt of.

Prescribers are familiar with the key requisites regarding efficacy, side effects, interactions, allergy, monitoring and prescribing in pregnancy and lactation. This chapter highlights, in alphabetical order, some other key considerations relevant to all prescribers, some of which have caused avoidable harm to prisoners.

## Anticholinergic load

Medicines with anticholinergic side effects should be prescribed with caution, particularly in older patients and in combinations of several anticholinergics. Prescribing drugs with anticholinergic properties can cause a number of side effects including falls, confusion, drowsiness, tachycardia, constipation, dry mouth and urinary retention. Where possible the anticholinergic burden should be minimised.

## Anticoagulants

Warfarin is widely prescribed in the UK and prescribers should be familiar with its dosing and the monitoring of the patient's INR (international normalised ratio). Poor monitoring can lead to lethal consequences due

to thromboembolism with low INRs and bleeding with high INRs. Some foreign nationals enter the prison system taking different coumarins which are prescribed in their country of origin. The failure to identify these medicines and monitor clotting in these patients has had serious consequences in some cases in the prison system.

### **Beta blockers**

It is recognised that beta blockers have a high risk of adverse reactions and should be prescribed with caution. They cause bronchospasm in patients with asthma.

### **Bisphosphonates**

The co-prescribing of calcium and vitamin D with oral bisphosphonates is advised. Lone bisphosphonate prescribing as has occurred in some establishments is not recommended.

### **Carbimazole**

Patients taking carbimazole require regular monitoring of their white blood count as well as thyroid function.

### **Dementia**

An ageing population means that the incidence of cognitive impairment in prisoners is rising. There is little evidence to date of dementia medicines, which include donepezil, rivastigmine, galantamine and memantine, being abused either in the community or in prison. However, it is likely that they have been tried for their euphoric, sedative or hallucinogenic potential at some time and it is probable that they will be misused in prison settings in the future. For these reasons the authors categorise them as amber drugs.

The physical care of patients with dementia should be optimised and particular caution exercised in prescribing dementia treatments to patients with cardiovascular problems. Screening blood tests and an ECG are advised prior to the initiation of treatment, following assessment and recommendation by a specialist memory service.

### **Diuretics and angiotensin/renin system drugs**

The MHRA recommends close monitoring of patients taking spironolactone and ACE (angiotensin converting enzyme) inhibitors or ARBs (angiotensin receptor blockers) as they are at risk of hyperkalaemia. It is noteworthy that ACE inhibitors commonly cause coughing. Patients taking diuretics, ACE inhibitors or ARBs should have their urea and electrolytes checked on a minimum of an annual basis.

### **DMARDs**

DMARDs (Disease Modifying Anti-Rheumatic Drugs) such as methotrexate and azathioprine are widely prescribed in the community for certain disorders, particularly rheumatological conditions. Regular blood monitoring is required in patients taking these medicines. These medicines are typically prescribed under a shared care protocol.

### **Iron**

The repeat prescribing of iron should be carefully reviewed to ensure that the cause for iron deficiency has been fully established and that prescribing stops when iron stores have been replenished. It is common for iron to be prescribed without a thorough clinical assessment of the cause of iron deficiency or anaemia, in some cases due to blood loss caused by malignancy. It is also common for iron to continue to be prescribed for longer than necessary.

### **Lithium**

Lithium levels, thyroid function, renal function and calcium levels should be monitored in patients taking lithium.

### **Non-steroidal anti-inflammatory drugs (NSAIDs)**

NSAIDs can cause serious gastrointestinal haemorrhage. They can also cause renal impairment. The risks to the gut are reduced by co-prescribing a proton pump inhibitor.

### **Paracetamol**

When prescribing paracetamol in prisons be aware of its availability for over the counter (OTC) purchase as well as the OTC availability of other medicines which may increase overdose risks in some patients.

### **Polytherapy and monitoring**

It is better to prescribe the fewest possible medicines together to effectively treat the patient's condition or conditions. Certain combinations of treatment while not interacting adversely with one another can cause unexpected cardiac arrhythmias which can be fatal. This is well recognised in psychiatry where patients taking several treatments should have periodic ECG monitoring to evaluate the QT interval. Where this is prolonged, reduction in treatment is recommended. Additionally, patients with persistent tachycardia (heart rate >100) should have their treatment reviewed.

Certain drug combinations are toxic to the kidneys and can cause kidney injury. Older patients and those with renal impairment are at the highest risk from such combinations, which include the co-prescribing of diuretics, ACE inhibitors or ARBs and anti-inflammatory drugs.

### **Sodium valproate**

The MHRA (Medicine and Healthcare Products Regulatory Agency) has emphasised the risk to children born to women taking sodium valproate. Female prisoners of child-bearing age will require a risk assessment which avoids them conceiving while taking valproate. They should receive expert advice, as identified by the MHRA, from neurologists and psychiatrists and where possible have their treatment changed. This applies to valproate prescribing both in epilepsy and psychotic disorders.





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