Publication withdrawn

This guidance was withdrawn in August 2025.

For current guidance on supporting people who use new psychoactive substances and club drugs, including in prisons and other secure settings, see Drug misuse and dependence: UK guidelines on clinical management.

Public Health England

Protecting and improving the nation's health

New Psychoactive Substances (NPS) in prisons:

A toolkit for prison staff

Contents

Who is this toolkit for?

The increasing use of NPS within secure environments is presenting prison-based staff with a significant set of new challenges.

This toolkit supports custodial, healthcare and substance misuse staff by providing information about the extent of NPS use as we currently understand it and about the properties of the various categories of NPS.

It also provides advice on how to manage the problem from a clinical, psychosocial and regime perspective.

Many of the principles that inform the management of NPS use in secure environments can also be applied in community settings.

What do we mean by NPS?

What do we mean by NPS?

- The terminology surrounding NPS is often misleading and confusing. The term “legal highs” was always unhelpful and inaccurate but its use has receded since the introduction of the Psychoactive Substances Act (PSA) 2016.
- The PSA defines psychoactive substance as something that produces a psychoactive effect in a person by stimulating or depressing the central nervous system and affecting mental functioning or emotional state.

Who uses NPS?

Who uses NPS?

- Fewer than 1 in 100 adults (0.7%) had used NPS in the last year (CSEW).
- 1.1% of men had used NPS in the last year compared to 0.4% of women (CSEW).
- 113,000 (3.6%) of men aged 16-24 had used NPS in the last year, almost half of all users (CSEW).
- There are different cohorts of NPS users, such as clubbers, people who use other drugs, homeless and vulnerable people, people who engage in chem-sex – in particular men who have sex with men.
- Prisoners form another group of NPS users that also includes a range of sub-cohorts.
- SC form the only category of illicit drugs whose use by prisoners is higher in prisons than in the community (10% compared to 6%) (Changing patterns of substance misuse in adult prisons and service responses A thematic review by HM Inspectorate of Prisons December 2015).
- There are shifting patterns of use due to variable purity and cost, along with changes in their legal status and their desired or adverse effects.
- NPS use is subject to regional variations and often linked to local sub-cultures.

NPS treatment presentations in the community

Changes in NPS treatment presentations in the community

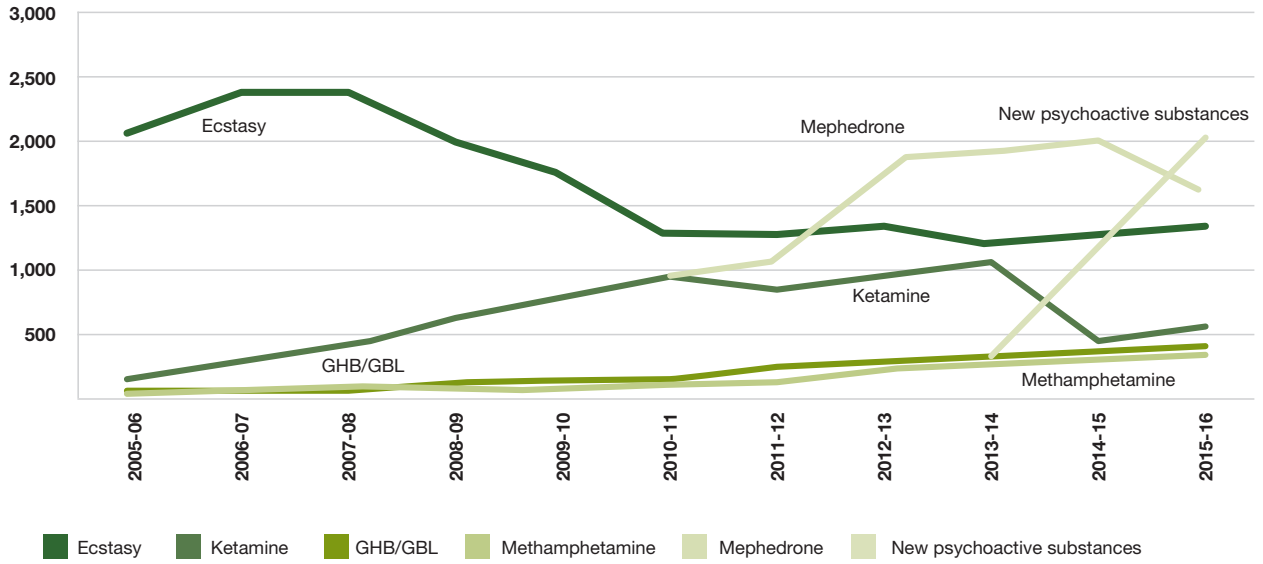
Year	2013-2014	2014-2015	2015-2016
Numbers in treatment	301,944	295,244	288,843
New presentations	147,458	141,646	138,081
Club drugs	4,661[3.16]	5,532 [3.90]	6,105 [2.11]
NPS	320 [0.21]	1,154 [0.81]	2,728 [0.9]*

NDTMS data

Figures in brackets are percentage of new presentations

***1,277 SC**

NPS and club drugs – new treatment presentations 2015-16



Adult substance misuse statistics from the National Drug Treatment Monitoring System (NDTMS)1st April 2015 to 31st March 2016

The law

The law

- The Psychoactive Substances Act (PSA) 2016 introduced penalties for the production and supply of psychoactive substances. Possession of a psychoactive substance will only be an offence within a custodial setting and not in the community.

  www.legislation.gov.uk/ukpga/2016/2/contents/enacted

- January 2015 - MoJ applies a range of measures to address NPS use in prisons.

  www.gov.uk/government/news/new-crackdown-on-dangerous-legal-highs-in-prison

- Serious Crime Act 2015 the new legislation makes it a crime to throw any object into a prison, including NPS.

  https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/417853/Fact_Sheet_-_Unauthorised_Throwing_of_Articles_into_Prisons_-_Act.pdf

- Local authorities, supported by the police, will continue to use a variety of trading standards and consumer legislation, along with measures to prevent antisocial behaviour and to protect public spaces, in order to address the problem in community settings.

Categories of NPS

Categories of NPS

- **Project NEPTUNE (March 2015) has been developed to improve clinical practice in managing harm resulting from club drugs and NPS use. It divides these drugs into four categories:**

1 - Synthetic cannabinoids [SC]

include a large number of drugs, the best known and most widely used being Spice and Black Mamba

2 - Depressants

include such drugs as GHB (gamma hydroxybutyrate), GBL (gamma butyrolactone) and ketamine, which has addition to its depressant

3 - Stimulants

include drugs like MDMA (3,4-methylene-dioxxyme-thamphetamine), better known as ecstasy, and ecstasy variants such as PMA (paramethoxyam-phetamine) and PMMA (paramethoxymethamphet - amine)

4 - Hallucinogens

include drugs such as LSD (lysergic acid diethylamide) and assorted tryptamines and phenethylamines

www.neptune-clinical-guidance.co.uk

The current and historical evidence indicates that the overwhelming majority of NPS used in the prison system are synthetic cannabinoids (SC). A wider range of NPS is used in the community where SC use if often associated with homeless and vulnerable people.

Prevalence: anecdotal reports

Prevalence: anecdotal reports

- Prison staff consistently express concern about high rates of SC use (usually Spice and Black Mamba), including by prisoners without a prior history of drug misuse.
- Nick Hardwick, HM Chief Inspector of Prisons, stated in September 2015 that two-thirds of prisons reported having a "significant issue" with NPS in 2014-15 compared to one-third in 2013-14.
- The new Chief Inspector, Peter Clarke, in the 2015/16 Annual Report provided an example of one prison where there had been over 30 recorded finds of NPS in the previous six months and almost 60 prisoners were recorded as being under the influence of these drugs in the same period; on one single day, 12 prisoners had to be treated for the effects of these substances.
- Healthcare staff report a significant impact on their day-to-day workload as a consequence of dealing with the acute adverse effects of SC.
- A thematic review by HMIP in December 2015 stated that "some prisons have required so many ambulances that community resources were depleted. In at least one prison ambulances are known as 'mambulances'."

Prevalence: seizures

Prevalence: seizures

A recent response to a parliamentary question (209374) reported that seizures of Spice have increased from 15 in 2010 to 430 during the seven months from 1 January to 31 July 2014. During the same period, there were only 21 seizures of ketamine, mephedrone and benzylpiperazine combined.

(see table below www.gov.uk/government/news/new-crackdown-on-dangerous-legal-highs-in-prison)

	1 Jan 2010 to Dec 2010	1 Jan 2011 to 31 Dec 2011	1 Jan 2012 to 31 Dec 2012	1 Jan 2013 to 31 Dec 2013	1 Jan 2014 to 31 Jul 2014
Mephedrone	0	0	0	3	2
BZP	0	1	0	0	0
Spice	15	86	133	262	430
Ketamine	1	3	5	2	4
Total	16	90	138	267	436

Prevalence: seizures (continued)

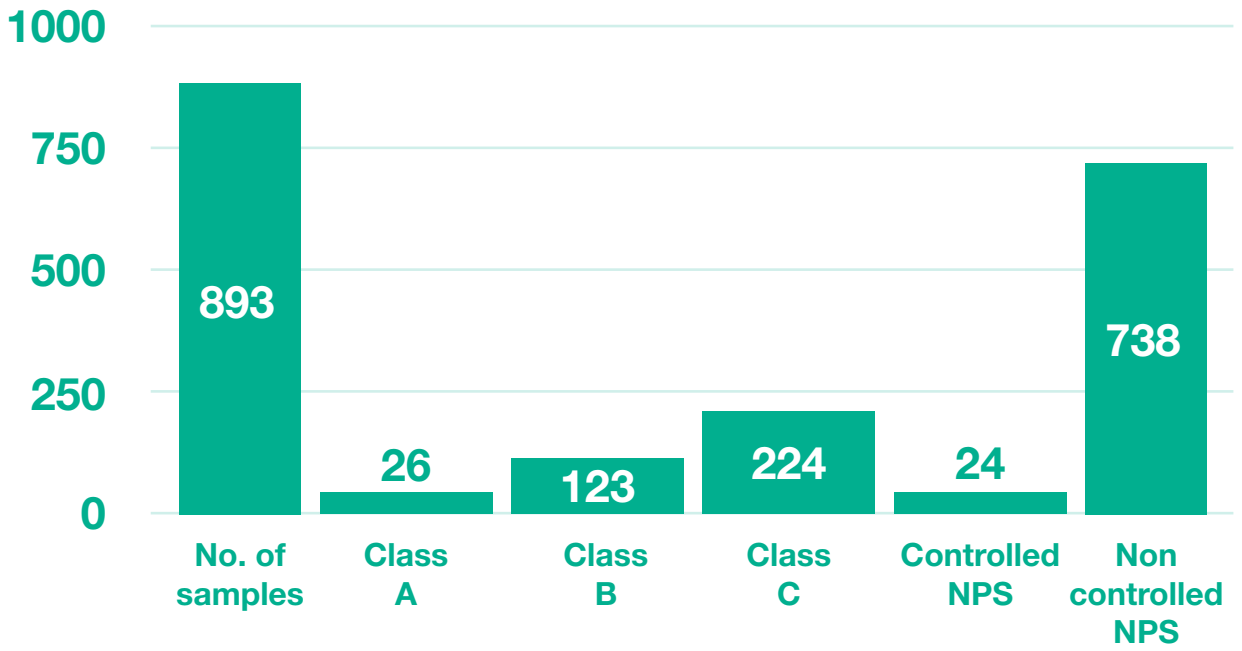
Conversely, positive tests for traditional cannabis fell by 59% (from 8.6% to 3.9% positive results) between 2003-04 and 2013-14.

Centre for Social Justice 2015:
http://www.centreforsocialjustice.org.uk/library/drugs-in-prison

As a result of increasing concerns around the availability and use of NPS in prisons, the Home Office Forensic Early Warning System (FEWS) has undertaken an analysis of seized inbound samples to identify the types of NPS being smuggled into prisons. Of the 893 samples analysed, 762 were found to be NPS. See table overpage.

Prevalence: seizures (continued)

Samples of drugs seized being brought in to prison.



www.gov.uk/government/uploads/system/uploads/attachment_data/file/461333/1280_EL_FEWS_Annual_Report_2015_WEB.pdf)

Reasons for the popularity of the NPS, particularly SC

Reasons for the popularity of NPS, particularly SC

- The growing popularity of NPS developed in the context of their undetectability by conventional testing, their relative affordability, their perceived legal status, along with alleviating boredom, being used as a coping mechanism or as a form of self-medication but there is emerging evidence that this situation may be changing.
- The unpredictable effects of SC may be an attractive feature of these drugs to some prisoners who wish to experiment or be more adventurous with their drug use.
- Advances in testing, combined with more rigorous enforcement of prison regulations, the introduction of smoke free prisons and the Psychoactive Substances Act provisions may combine to have an impact on NPS use in prison.
- "if you smoked cannabis on the outside then you are going to substitute that with spice in here"… "I used it 'cause I was bored, just wanted get out of it"… "It takes away the boredom, you just get out your face, then you don't feel anything".
(SPICE: the bird killer. Uservoice May 2016).

Challenges for Healthcare staff

Challenges for healthcare staff

- As with all illicit drug use in prison, the covert nature of NPS use, the unpredictable effects of the drugs and the delay in seeking medical help all combine to have a significant impact on staff providing health and psychosocial care.
- Some of the extreme effects of SC (convulsions, bizarre behaviour, temporary paralysis, rapid heart rate, aggression and psychosis) require an immediate response and may require transfer to hospital.
- The adverse effects of SC use can be long lasting, and custody and healthcare staff may have to manage the consequences for months following the initial presentation.
- Some prisoners who use SC may not see themselves as having a problem with their use, so may be reluctant to engage with substance misuse teams or take measures to reduce or discontinue their use of the drugs, but they should be given every encouragement and support to do so.
- It may be necessary to withhold prescribed medications where SC use is suspected. Particular caution is required with some antipsychotic drugs but these decisions will need to be made on a case by case basis.

Link between NPS and deaths in custody

Link between NPS and deaths in custody

- In November 2016, the Prisons and Probation Ombudsman [PPO], Nigel Newcomen reported that he had identified 64 deaths in prison that occurred between June 2013 and April 2016, where the prisoner was known, or strongly suspected, to have been using NPS before their death.
- Whilst the PPO was careful not to make a causal link between NPS use and these deaths, it is striking that 44 of these deaths were self-inflicted, in some cases involving psychotic episodes potentially linked to NPS use.
- Two were homicides - both of these involved prisoners who were killed by a punch from another prisoner. In one instance, it was the victim who had links to NPS. In the other, it was the perpetrator who was linked to NPS.

Challenges for the wider prison regime

Challenges for the wider prison regime

- The rapidly increasing prevalence of NPS in prisons is placing additional demands on prison and security staff resources in terms of supply disruption, searching and detection activities.
- The need to manage prisoners behaving abnormally or dangerously, to transfer prisoners to hospital or to manage long-term challenging behaviour has implications for custodial staff.
- Nick Hardwick, HM Chief Inspector of Prisons, stated in September 2015 that increased use of NPS in prisons would appear to be contributing to rising problems with debt, bullying and violence, and that evidence suggests organised crime groups are supplying NPS to prisons.
- Peter Clarke HM Chief Inspector of Prisons stated in his Annual report (2015/16) that NPS "caused major problems in most adult establishments that we inspected, including medical emergencies, indiscipline, bullying and debt".

Management of NPS in prisons

Management of NPS in prisons

- Establishing accurate data on the prevalence, use and effects of NPS remains crucial to determining successful management of the problems associated with these drugs.
- It is essential that every establishment has an integrated response, with custodial, health and psychosocial staff taking a joint approach to managing all aspects of the problems associated with SC in prisons.
- This can be supported by a multimedia campaign directed at prisoners and visitors, describing the health consequences and the sanctions for possessing and using NPS.
- The overriding principle is that staff should respond in a proportionate and relevant way to presenting behaviour or symptoms, irrespective of whether prisoners are suspected to be under the influence of NPS.
- Prison healthcare providers should follow existing PHE guidance that the appropriate response is to address the presenting symptoms rather than the specific drug suspected to have been used i.e. treat what you see.
- Where there are questions about prisoners' mental capacity when under the influence of NPS, staff should apply the principles set out in the NHS choices consent to treatment guidance (www.nhs.uk/Conditions/Consent-to-treatment/Pages/ Capacity.aspx)

  Issues related to control and restraint are covered by PSO 1600 - Use of force

Management of NPS in prisons (continued)

- In general, no specific pharmacological treatments exist for the adverse effects of NPS, so symptom-directed supportive care will inform the safe and effective management of acute presentations, underpinned by advice from the National Poisons Information Service and its online toxicology database and telephone enquiry service TOXBASE.
- The decision on sending for an ambulance will depend on a number of factors including the prison location, healthcare staffing and resources and the use of locally agreed protocols like the National Early Warning Score (NEWS).
- The mainstay of longer-term treatment will be the appropriate clinical and psychosocial support as described in the Project NEPTUNE guidance document. Substance misuse services may need to adapt their current treatment practices in order to better address the needs of people using NPS. However, major changes in existing therapeutic approaches should not be necessary.

  (www.neptune-clinical-guidance.co.uk/wp-content/uploads/2015/03/NEPTUNE-Guidance-March-2015.pdf)

Synthetic Cannabinoids

Synthetic Cannabinoids

- Synthetic cannabinoids [SC] merit particular consideration because of their prevalence in prisons compared to other illicit drugs.
- These drugs contain a wide range of active chemicals which stimulate the brain's receptors in a variety of ways.
- SC can be more than 100 times more potent than natural cannabis which, combined with their long half-life, can result in unpredictable, severe and long lasting adverse effects.
- In the absence of rapid urine or blood tests to confirm the use of NPS (or other drugs), assessment has to be clinical, based on history, where available, and recognising the clinical presentation.
- New, improved off-site testing can detect the most commonly used SC, with a retention period ranging from two days up to 30 days, depending on the frequency and degree of use.
- Feedback from training events has identified increasing confidence of staff in dealing with the acute and chronic effects of SC use, with staff taking a de-escalation approach to acute presentations, using control and restraint as a last resort and rarely using sedating medication to manage agitation and aggression.
- The vast majority of people using SC would rather use traditional high potency cannabis (Global Drug Survey 2016) and advising people of the significant adverse effects associated with SC use may motivate some individuals to reduce or stop their use.

Synthetic Cannabinoids – examples of good practice

- The use of observation cells rather than sending a prisoner straight to hospital.
- Establishing a recovery circle where staff and affected prisoners discuss presentations and responses related to SC use.
- Availability of “grab bags” containing drugs and equipment for emergency use on the wings rather than in healthcare [these bags can also contain documents to support data capture].
- drop-in clinics to facilitate engagement with psychosocial services.
- Psychosocial services identifying an individual’s recovery trajectory and engaging with it appropriately.
- The provision of wide-ranging harm reduction advice along with the use of prison radio and other media to increase awareness among prisoners and staff of the potential harms of SC use. Raising awareness of the frequent need for Emergency Department interventions and the elevated risk of experiencing a convulsion associated with SC use.
- The adoption of the “Treat what you see” approach to underpin a symptom-based approach to the management of the adverse effects of SC.
- Engaging prisoners as peer mentors and providers of peer support .

Drugs: desired effects, users, adverse effects, and managing acute and chronic adverse efftects

Synthetic cannabinoids

Note that while the evidence indicates SC account for the majority of NPS currently used in prisons, we recognise that the situation is fluid and subject to change and so have included information on the four categories of NPS and club drugs described in Project Neptune

Class B where classified

Street names
‘Annihilation’
‘Amsterdam Gold’
‘Spice’
‘Black Mamba’

More information online

DESIRED EFFECTS

Relaxation, euphoria, disinhibition, feeling energised, altered consciousness.

WITHDRAWAL

There is evidence that chronic use of SC may be associated with tolerance and that tolerance may develop more quickly for SC than for natural cannabis. Withdrawal symptoms may follow prolonged and frequent use and for some users these symptoms may be severe and intolerable leading to continued use Gastrointestinal cramps, nausea, tremor, hypertension, tachycardia, coughing, headache, craving, anxiety, restlessness, irritability, depression and suicidal ideation.

ADVERSE EFFECTS

Acute: Convulsions, hypertonia, myoclonus, wide-ranging cardiovascular effects including myocardial infarction and ischaemic strokes, acute kidney injury, hyperglycaemia, hypoglycaemia, vomiting, transient loss of vision and speech, reduced levels of consciousness, anxiety, aggression, extreme bizarre behaviour, amnesia, confusion, panic attacks, inappropriate affect, auditory and visual hallucinations, paranoia, delusions, psychosis.

Chronic: Psychosis, cognitive impairment, catatonic states, dependence, persistent vomiting, withdrawal symptoms on reduction or cessation of use.

USERS / MODES OF USE

Users: Prisoners, workers subject to drug testing, users of other drugs, homeless and vulnerable people.

Modes of use: Smoked in joints or inhaled through a bong, rarely ingested or snorted.

The phased implementation of smoke free prisons will inevitably impact on how SC is ingested and the implications will need to be closely monitored.

TREATMENT

Acute: Symptom-directed supportive care, medication may be required for agitation, convulsions, or psychosis.

If symptoms are persistent or severe, transfer to hospital may be necessary.

Chronic: Psychosocial and other appropriate support, pharmacotherapy, where appropriate, for enduring symptoms.

http://neptune-clinical-guidance.co.uk/wp-content/uploads/2016/07/Synthetic-Cannabinoid-Receptor-Agonists.pdf

Depressants/ dissociative

Ketamine
Class B

Street names

'Ket'
'Special K'
'Kit-Kat, Super K'

DESIRED EFFECTS

Dissociation, intense detachment (K-hole), perceptual disorders, auditory and visual hallucinations.

USERS / MODES OF USE

Users: Young (20-24), single, unemployed, students, clubbers, MSM (men who have sex with men), polydrug users.

Modes of use: Snorted, rarely orally or injected.

ADVERSE EFFECTS

Acute: Nausea, slurred speech, dizziness, collapse, accidential injury, agitation, tachycardia, visual hallucinations.

In the absence of rapid urine or blood tests to confirm the use of ketamine (or other drugs), assessment has to be clinical, based on history, where available, and recognising the clinical presentation.

Chronic: Ulcerative cystitis, K-cramps, psychosis, dependence.

TREATMENT

Acute: Symptom-directed supportive care until symptoms, which are usually short lived, resolve.

Chronic: Motivational interviewing, relapse prevention, psychosocial support, bladder monitoring, pain management.

More information online

Stimulants

Ecstacy (MDMA) Class A

Variants (PMA/PMMA) Class A

Street names
‘E’
‘Molly’
‘Mandy’
‘MD’

More information online

DESIRED EFFECTS

Energy, euphoria, empathy, “loved up”.

USERS / MODES OF USE

Users: **Clubbers, young people, students, polydrug users, 95% of time taken with alcohol.**

Modes of use: **Bombing crystals or powder is most common; also swallowed in tablet form and, rarely, dabbed.**

ADVERSE EFFECTS

Acute: **Hyperthermia, hyponatraemia (women especially), tachycardia, hypertension, serotonin syndrome, collapse, convulsions, hallucinations, headache, sweating, kidney injury, delayed orgasm, erectile dysfunction.**

In the absence of rapid urine or blood tests to confirn the use of ecstasy (or other drugs), assessment has to be clinical, based on history, where available, and recognising the clinical presentation.

Chronic: **Cognitive impairment, neurotoxicity, depression, increased suicide risk.**

TREATMENT

Acute: **Symptom-directed supportive care while awaiting transfer to hospital for more specific treatment, such as cooling, management of dehydration and hyponatraemia.**

Chronic: **Psychosocial support, symptomatic support.**

Avoid monoamine oxidase inhibitors and selective serotonin reuptake inhibitors.

Hallucinogens

Lysergamides (Class A)

Street names
‘LSD’, ‘Acid’, ‘A tab’, ‘Blotter’, ‘Geltabs’, ‘Windowpane’

Tryptamines (Class A)

Street names
‘Magic mushrooms’, ‘Mushies’, ‘Shrooms’

Phenethylamines (Class A)

Street names
‘Mescaline-Peyote’, ‘San Pedro’, ‘Peruvian Torch’, ‘Bees’, ‘Nexus, N-Bomb’

More information online

DESIRED EFFECTS

Euphoria, mild stimulation, altered sense of time and space, enhanced appreciation of music, visual distortions, intensified sensual or sexual feelings.

ADVERSE EFFECTS

Acute: Dysphoria, panic, paranoia, tremor, tachycardia, hyperthermia, depersonalisation.

In the absence of rapid urine or blood tests to confirm the use of hallucinogens (or other drugs), assessment has to be clinical, based on history, where available, and recognising the clinical presentation.

Chronic: Dependence (rare), flashbacks, persisting persisting perceptual disorder.

USERS / MODES OF USE

Users: Young (16-24), polydrug users, used relativley infrequently.

Modes of use: Orally, sublingually, buccal, rarely snorted.

TREATMENT

Acute: Symptom-directed supportive care until symptoms (usually mild and transient) have resolved.

Chronic: Supportive-dependence is rare.

References and further reading

REFERENCES AND FURTHER READING

- **Drug Misuse: Findings from the 2015/16 Crime Survey for England and Wales**
  https://www.gov.uk/government/statistics/drug-misuse-findings-from-the-2015-to-2016-csew

- **Changing patterns of substance misuse in adult prisons and service responses. A thematic review by HM Inspectorate of Prisons**
  https://www.justiceinspectorates.gov.uk/hmiprisons/wp-content/uploads/sites/4/2015/12/Substance-misuse-web-2015.pdf

- **Adult substance misuse statistics from the National Drug Treatment Monitoring System (NDTMS)1st April 2015 to 31st March 2016**
  http://www.nta.nhs.uk/uploads/adult-statistics-from-the-national-drug-treatment-monitoring-system-2015-2016[0].pdf

- **HM Chief Inspector of Prisons for England and Wales Annual Report 2014–15**
  https://www.justiceinspectorates.gov.uk/hmiprisons/wp-content/uploads/sites/4/2015/07/HMIP-AR_2014-15_TSO_Final1.pdf

- **HM Chief Inspector of Prisons for England and Wales Annual Report 2015–16**
  https://www.justiceinspectorates.gov.uk/hmiprisons/wp-content/uploads/sites/4/2016/07/HMIP-AR_2015-16_web-1.pdf

- **Spice: the bird killer (User Voice May 2016)**
  http://www.uservoice.org/wp-content/uploads/2016/05/User-Voice-Spice-The-Bird-Killer-Report-Low-Res.pdf

- **Project NEPTUNE guidance, 2015**
  www.neptune-clinical-guidance.co.uk/wp-content/uploads/2015/03/NEPTUNE-Guidance-March-2015.pdf

REFERENCES AND FURTHER READING

- Harms of Synthetic Cannabinoid Receptor Agonists (SCRAs) and Their Management. Novel Psychoactive Treatment UK Network NEPTUNE

  http://neptune-clinical-guidance.co.uk/wp-content/uploads/2016/07/Synthetic-Cannabinoid-Receptor-Agonists.pdf

- Ministry of Justice press release, 25 January 2015

  www.gov.uk/government/news/new-crackdown-on-dangerous-legal-highs-in-prison

- Centre for Social Justice, 'Drugs in prison', 2015

  http://www.centreforsocialjustice.org.uk/library/drugs-in-prison

- EMCDDA, European Drug Report 2015: 'Trends and developments', June 2015

  www.emcdda.europa.eu/publications/edr/trends-developments/2015

- Drugscope, 'Not for human consumption: an updated and amended status report on new psychoactive substances and 'club drugs' in the UK',2015

  http://www.re-solv.org/wp-content/uploads/2015/06/Not-for-human-consumption.pdf

- PHE, 'New psychoactive substances. A toolkit for substance misuse commissioners', 2014

  www.nta.nhs.uk/uploads/nps-a-toolkit-for-substance-misuse-commissioners.pdf

- Home Office, 'Annual report on the Home Office Forensic Early Warning System (FEWS). A system to identify new psychoactive substances (NPS) in the UK', September 2015

  https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/461333/1280_EL_FEWS_Annual_Report_2015_WEB.pdf

- Global Drug Survey 2016
  https://www.globaldrugsurvey.com/past-findings/the-global-drug-survey-2016-findings/

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services.

PHE is an operationally autonomous executive agency of the Department of Health Public Health England, Wellington House, 133-155 Waterloo Road, London SE1 8UG.

Web: **www.gov.uk/phe**

Tel: **020 7654 8000**

Twitter: **@PHE_uk**

Facebook: **www.facebook.com/PublicHealthEngland**

For queries relating to this document, contact nino.maddalena@phe.gov.uk
Published December 2015. PHE publications gateway number: 2015534

Acknowledgments

Developed by Dr George Ryan & Nino Maddalena.

Contributions:

Kieran Lynch, Michael Wheatley, Martin Stephens

Public Health England

NHS England

Ministry of JUSTICE
National Offender Management Service

therapeutic solutions