About programme updates
The Centre for Pharmacy Postgraduate Education (CPPE) has a quality assurance process called programme guardians. A programme guardian is a recognised expert in an area relevant to the content of a learning programme who reviews the programme every six to eight months. Following the regular programme guardian review we have developed this update to inform you of any necessary corrections, additions, deletions or further supporting materials. We recommend that you check you have the most recent update if you are using a programme more than six months after its initial publication date.

This update has been prepared by Graham Parsons and should be read in conjunction with the Substance use and misuse open learning programme. We have indicated the relevant section and page number of the original document wherever we provide updated information.

Learning with CPPE
CPPE offers a wide range of learning opportunities in a variety of formats for pharmacy professionals from all sectors of practice. We are funded by Health Education England to offer continuing professional development for all pharmacists and pharmacy technicians providing NHS services in England. For further information about our learning portfolio, visit: www.cppe.ac.uk

A note about web links
Where we think it will be helpful we have provided web links to take you directly to an article or specific part of a website. However, we are aware that web links can change. If you have difficulty accessing any web links we provide, please go to the organisation’s home page or your preferred internet search engine and use appropriate key words to search for the relevant item.

All web links were accessed on 22 November 2016.

Access to the BNF online
You can access the BNF online through MedicinesComplete. If you are not already registered, you will need to do so. UK-based individuals working for or on behalf of the NHS can register for free and access the BNF and BNF for children. To register, go to: www.medicinescomplete.com/about/subscribe.htm

Assessment
As part of your learning for this programme, you may wish to undertake the associated e-assessment. To access the assessment, go to: www.cppe.ac.uk/assessment

References in the programme to primary care trusts (PCTs)
As part of the NHS reorganisation, from 1 April 2013 PCTs no longer exist. Clinical commissioning groups (CCGs) and area teams (ATs) share the responsibilities of commissioning services. Please take this into consideration as you work through this learning programme.
References in the programme to competency frameworks
In this programme we may map our learning objectives against the Royal Pharmaceutical Society of Great Britain’s competency framework, the General level framework or the Knowledge and skills framework. You can easily map the learning objectives against a competency framework that is relevant to your practice.

Section 1 Introduction to substance misuse
1.4 Drug dependence
Withdrawal syndrome (page 4 – amendment)
Remove the words ‘or a benzodiazepine’ from the end of the paragraph.

1.5 The law relating to substance misuse Table 1 (page 5 – additional text and amendment)
Mephedrone should now be included in the table as a Class B drug.
Tramadol, khat, zopiclone and zaleplon should now also be included in the table as Class C drugs.
Ketamine has been reclassified and should be moved from Class C to Class B.

Exemptions to the Misuse of Drugs Act 1971 (page 5 – amendment)
Remove the second paragraph on khat. In June 2014, khat was reclassified as a Class C drug.

The Misuse of Drugs Regulations 2001 (page 7 – additional text)
Add the following drugs to this section:
- Lisdexamfetamine to Schedule 2
- Tramadol to Schedule 3
- Zopiclone and zaleplon to Schedule 4 Part I

1.8 Misuse of legal substances
Alcohol and tobacco (page 13 – additional text)
Add the following text at the end of the second paragraph on page 13:
Although outside the remit of this programme, the increase in popularity of e-cigarettes is having an impact on smoking habits and should be considered.

Legal highs (page 13 – additional text)
New (or Novel) Psychoactive Substances (NPS) have formerly been known by a variety of different names, including ‘legal highs’. NPS pose a particular challenge because they mimic the effects of traditional illicit substances but their true content, interactions and effects on physical and mental health remain largely unknown.

The Psychoactive Substances Act (PSA) came into effect across the UK in May 2016 and brings under control a wide range of ‘psychoactive substances’. According to PSA, it is legal to possess NPS (except in prison or young persons’ institutions) but not to supply, intend to supply, produce or export them.
Exempted substances include: drugs controlled under the Misuse of Drugs Act 1971 such as medicinal

Pharmacy teams in community and hospital settings may encounter individuals who may have used NPS and need to be aware of how to manage them. Often, individuals may have consumed a ‘cocktail’ of substances, typically from a range of drug classes and possibly alcohol. The actual substance which the person has taken, routes of administration, time of onset and duration of action are usually unknown so individuals may present with a range of symptoms, some of which may be due to high potency, drug-drug interactions or synergies between substances. There is also the potential for interactions between NPS and prescription or over-the-counter medicines.

Some medicines may be misused to enhance the sedating, euphoric or hallucinogenic effects of NPS. If sedating NPS are taken alongside other medicines which can sedate (eg, opioids or benzodiazepines), this may lead to an increased risk of adverse events such as having a fall or overdose. If the NPS is a stimulant type, it may have effects upon the heart and increase the risk of QT prolongation if taken in conjunction with other medicines which may also have this side-effect profile (eg, methadone, pregabalin, citalopram and amitriptyline) and this may be fatal. The risk of significant adverse effects is likely to increase with higher doses, polypharmacy and frequency of use. Some medicines, such as opioids, diazepam or antipsychotics may also be taken to manage the ‘come downs’ from stimulant or hallucinogenic NPS. It is critical to find out (as far as is possible) what has been consumed and to treat the symptoms presented. It is also important that the community pharmacy team do not supply medicines to the person if they present as intoxicated due to associated risks.

Signs and symptoms of intoxication are wide-ranging and may include violence, aggression and seizures as well as sympathomimetic and neuropsychiatric symptoms, serotonin syndrome, syndrome of inappropriate secretion of anti-diuretic hormone (SIADH), rhabdomyolysis and death. Injecting NPS is associated with the risk of skin necrosis, blood-borne and sexually transmitted infections (STIs).

Individuals who use NPS should be treated by the pharmacy team in the same way as any other person, as they often feel stigmatised, guilty and embarrassed and they can be chaotic at times, making it difficult for these individuals to access other services. They may benefit from accessing all the harm reduction services offered in the pharmacy as well as minor ailment schemes, sexual health services, health promotion services and medication use reviews (MURs). It is important that the pharmacy team know how to signpost and refer NPS users (and their relatives/carers) to specialist substance services, and to other services if they present with complications or associated problems (such as abscesses from injecting).

A good resource for NPS users is Ask Frank: www.talktofrank.com/drug/new-psychoactive-substances

Some key NPS resources for health professionals are available:

Substance use and misuse
Second edition 2012
A CPPE open learning programme
Update September 2016

- NEPTUNE clinical guidance: http://neptune-clinical-guidance.co.uk
- Society for Study of Addiction resources on NPS:
  www.addiction-ssa.org/knowledge-hub/topic/novel-psychoactives

1.10 Misuse of prescription medicines Tramadol (page 17 – amendment)
Remove the words ‘and its current non-controlled status’ from the sentence as tramadol was reclassified in 2014 as a Schedule 3 controlled drug.

For more learning on this topic, see the CPPE/RCGP e-learning programme Addiction, misuse and dependency: A focus on over-the-counter and prescribed medicines, which is available at: www.cppe.ac.uk

Other prescription-only medicines that may be misused (page 18 – additional text)
- Tadalafil
- Pregabalin and Gabapentin
  The Advisory Council on the Misuse of Drugs (ACMD) have recently published advice on Pregabalin and Gabapentin. The advice recommends that both drugs are reclassified to Class C (under the Misuse of Drugs Act 1971) and Schedule 3 Controlled Drugs (under the Misuse of Drugs Regulations 2001). ¹

Anabolic steroids (page 19 - additional text)
Add the following text to the bottom of page 19 before the practice point:
An additional risk factor in the use of anabolic steroids is that many of the drugs available via the black-market are counterfeits.

1.11 General guidance on working with substance misusers Confidentiality (page 20 – additional text)
Add the following to the end of the section
The GPhC has produced guidance documents on patient confidentiality and consent. Both are available via the Standards section of their website: www.pharmacyregulation.org/standards

Suggested answers – Case study 2 part 2
What should you do now? (page 27 – additional text)
Please add the following to the end of the section:
You should consider the process for reporting a fraudulent prescription. For more information see Drug Tariff Part XIVA – Reward scheme – Fraudulent prescriptions forms.
Section 2 Drug treatment services in England

2.1 Government policy and organisations

The National Treatment Agency for Substance Misuse (page 31 - additional text)
In the first sentence on this page ‘a new Public Health Service’ refers to Public Health England; however responsibility for commissioning services at a local level is devolved to the local authorities. Add the following text to the bottom of the first paragraph on this page: The NTA still produces data and publishes it online at: www.nta.nhs.uk

Advisory Council on the Misuse of Drugs (page 31 – amendment)
At the start of the final sentence, remove ‘Its Prevention Working Group carries out.’ and replace with ‘The ACMD has two committees (Recovery and Technical) and five working groups (NPS, Cocaine, Polysubstance Use, Ketamine and Diversion and Illicit Supply of Medicines) which carry out.’

2.2 Clinical management of substance misuse (page 32 – additional text)
The current Department of Health’s guidelines Drug misuse and dependence - UK guidelines on clinical management (2007) are undergoing a comprehensive review. A new version should be published in the final quarter of 2016.

National Institute for Health and Clinical Excellence (NICE) Public health guidance (page 33 - amendment)
In March 2014, NICE published PH52: Needle and syringe programmes, which replace PH18 (2009).

2.6 The role of pharmacist prescribers in the treatment of substance misuse (page 40 – additional text)
Add the following text to the bottom of this page:
New guidance from Public Health England on non-medical prescribing for substance misuse is available at:

Section 3 Reducing drug-related harm: safer injecting, overdose prevention and health promotion

3.4 Blood-borne viruses
Hepatitis C (page 46 to 48 – additional text)
The statistics in this section are now quite old. For more recent information see the Public Health England publication Hepatitis C in the UK: 2016 report, available at: www.gov.uk
Diagnosed and treated, the cure rate for hepatitis C has now increased from 80% to 90% of cases, using some of the newer combination treatment regimens introduced recently.
Add the following pieces of NICE guidance to the list on page 48:

- TA252 (April 2012) Telaprevir for the treatment of genotype 1 chronic hepatitis C
- TA253 (April 2012) Boceprevir for the treatment of genotype 1 chronic hepatitis C
- TA300 (November 2013) Peginterferon alfa and ribavirin for treating chronic hepatitis C in children and young people
- TA330 (February 2015) Sofosbuvir for treating chronic hepatitis C
- TA331 (February 2015) Simeprevir in combination with peginterferon alfa and ribavirin for treating genotypes 1 and 4 chronic hepatitis C
- TA363 (November 2015) Ledipasvir-sofosbuvir for treating chronic hepatitis C
- TA364 (November 2015) Daclatsvir for treating chronic hepatitis C
- TA365 (November 2015) Ombitasvir-paritaprevir-ritonavir with or without dasabuvir for treating chronic hepatitis C

**Hepatitis B** (page 49 – additional text)

NICE quality standard 65: Hepatitis B was published in July 2014 and covers testing, diagnosis and management of hepatitis B.

**3.5 Other infections caused by injecting:** Bacterial infections

**Anthrax** (page 50 – additional text)

The anthrax being referred to here is cutaneous anthrax.

**Streptococcal infections** (page 52 – amendment to text)

Amend the first words of the sentence to read, ‘Streptococcal organisms are often found…’

**Fungal infections**

**Candidiasis** (page 53 – additional text)

Add this after the first sentence of the second paragraph on page 53: Mycotic endophthalmitis is a serious condition that can cause blindness.

**3.8 Injecting paraphernalia: Foil** (page 57 – amendment)

Replace the final sentence of the paragraph with:

In September 2014 new legislation was put in force permitting the supply of aluminium foil as part of a needle and syringe programme, subject to certain restrictions. For more information, have a look at this Public Health England briefing: [www.nta.nhs.uk/uploads/phe-foil-briefing.pdf](http://www.nta.nhs.uk/uploads/phe-foil-briefing.pdf).

**3.11 Drug-related deaths** (page 63 – amendment)

Replace the second paragraph with the following text:

In 2015, there were 3674 drug-related deaths in England and Wales, the highest figure since records began in 1993. Of these, 2479 (67%) were attributed solely to illegal drugs with men three times more likely to die from drug misuse than females.²

Deaths involving heroin and morphine have more than doubled since 2012, partly driven by a rise in
heroin purity and availability over the last 3 years. Age is also a factor in the record levels of drug deaths, as heroin users are getting older and they often have other conditions, such as lung disease and hepatitis, that make them particularly vulnerable.2

Advice on prevention of death from overdose (page 64 – additional text)
Add in the following bullet points to the end of the list:
- discuss the risks of poly-drug use including alcohol and prescribed and OTC medicine use
- avoid injecting
- carry naloxone if using opioids
- be familiar with basic life support and what actions to take if someone overdoses
- never use drugs alone
- if someone overdoses, call 999.

Management of overdose (page 64 – amendment)
Amend the order of the bullet points so that ‘call an ambulance’ is the first step.

Supply and administration of naloxone (page 66 – additional text)
New legislation introduced in October 2015 now allows ‘people working in commissioned, lawful drug treatment services’ to supply naloxone without a prescription.3

Advice from Public Health England suggests that clients and/or their family members, carers or friends should receive training on how to prevent an overdose and respond to it together with basic life support tuition. Full details are available at: www.nta.nhs.uk/uploads/phetake-homenaloxoneforopioidoverdosefeb2015rev.pdf. While it may take some time to embed these new services, you should be aware of them and whether a take-home naloxone service is available in your locality.

Section 4 Reducing drug-related harm: psychosocial and pharmacological interventions

4.5 Substitute prescribing for maintenance Methadone (page 82 – deletion)
Delete the first bullet point - Methadone oral solution 5mg in 1ml is no longer available.

Methadone – safety (page 85 – amendment)
In the first sentence, replace ‘a methadone dose as low as 30 mg may be fatal’ with ‘a methadone dose as low as 20 mg may be fatal’.

Buprenorphine (page 87 - amendment)
Buprenorphine sublingual tablets are now available in 400 microgram, 1 mg, 2 mg, 6 mg and 8 mg strengths.
Buprenorphine and pregnancy (page 89 – amendment)
Add the following text to the end of the final sentence:
Especially at higher doses (over 12 mg) where the blockade of opioid μ-receptors becomes significant.

Exercise 13: Hazardous drug interactions with buprenorphine (pages 89 and 100 – deletion)
Following recent safety concerns of oral ketoconazole, remove ketoconazole from the table on page 89 and from the suggested answers on page 100.

4.6 Prescribing for detoxification Treatment of opioid withdrawal symptoms Lofexidine (page 92 – amendment)
In the fourth sentence, 800 mg should read 800 micrograms.

Section 5 Providing pharmacy services for substance misusers

Highlighted box (page 105 – amendment)
The reference to PharMag should read PharMAG (Pharmacy Misuse Advisory Group). NICE PH18 (2009) has been replaced by PH52: Needle and syringe programmes (March 2014).

5.1 Needle and syringe schemes
Other injecting paraphernalia (page 109 – amendment)
Move foil* from the ‘Paraphernalia that is not currently legal to supply’ list to the ‘Paraphernalia that is currently legal to supply’ list. Delete the paragraph with the asterisk.

5.2 Dispensing and supervised consumption of oral opioid substitution therapy Substitute medication and driving - Exercise 16 (page 117 – amendment)
Replace the text in the box with the following:
In March 2015, new drug driving legislation was introduced to England and Wales. The new law sets very low limits for eight drugs commonly associated with illegal use as well as for eight prescription drugs including methadone, morphine and a number of benzodiazepines. The limits for the prescription drugs have been set at higher levels so the majority of clients should not exceed these. However, if they do, and they can prove that they have taken the medicine in accordance with the advice of a healthcare professional and their driving is not impaired, they can present a medical defence. Pharmacists can play a vital role in ensuring that clients understand this new legislation and do not endanger themselves or other individuals while driving whilst taking substitute medicine.

Further details on the rules around driving and substitute medicines can be found at:
www.gov.uk/government/publications/at-a-glance

For details on the new drug-driving legislation go to: www.gov.uk/government/news/drug-drive-legislation-am-i-fit-to-drive
Further reading

Further reading (page 134 – amendment)
www.smmgp.org.uk/download/guidance/guidance004.pdf

Useful websites (page 134 – additional text)
The Independent Scientific Committee on Drugs www.drugscience.org.uk

References for this update
www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsrelatedtodrugpoisoninginenglandandwales/2015registrations
3. The Human Medicines (Amendment) (No. 3) Regulations. 2015.

Feedback
We hope you find this learning programme useful for your practice. Please help us to assess its value and effectiveness by visiting your learning record in the *My CPPE* section on our website:
www.cppe.ac.uk/mycppe/record

Alternatively, please email us at: feedback@cppe.ac.uk

Copyright Controller HMSO 2016