Public Health England

Protecting and improving the nation's health

Drug Harms Assessment and Response Team

Quarterly summary for professionals: December 2020

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2. COVID-19 update

Public Health England (PHE) and the Drug Harms Assessment and Response Team (DHART) are monitoring the wider impact of COVID-19 on drug markets and drug harm through a range of indicators. They are also collecting intelligence via various networks. Some important points are summarised below.

Provisional NDTMS data for April to September 2020 suggests that deaths in treatment could be higher than might be expected (based on deaths recorded in treatment over the previous 5 years) for opiate service users in England.

Although alcohol is not a focus for the DHART, the same data suggests deaths in treatment among alcohol service users could also be higher than we might normally expect.

The potential increases in deaths seen in the early part of this year for opiates and alcohol are geographically widespread. It should not be assumed that COVID-19 directly accounts for this increase in deaths, especially as it happened in months where overall COVID-related deaths were low.

Provisional NDTMS data over this period suggests that there has been little change in deaths among non-opiate service users (people who reported using drugs other than opiates and alcohol), though numbers are low.

Methadone overdoses resulting in hospital admission (generally not fatal) have increased substantially. This may be relevant, but it's not known if the people who were admitted to hospital were in drug treatment.

Services are encouraged to ensure treatment provided is personalised and in line with guidance as far as current circumstances allow.

3. Stimulants

3.1 Cocaine (including crack cocaine)

Key clinical messages

Prevalence of cocaine use (including crack) appears to have increased in recent years across the UK. The latest European Drug Report from the European Monitoring Centre for Drugs and Drug Addiction shows that England and Wales had the highest prevalence of cocaine use in Europe in 2019.

Latest evidence

Deaths involving cocaine (powder or crack) registered in England and Wales, Scotland and Northern Ireland in 2018 all reached the highest levels on record. Data from England and Wales shows that this trend has continued. There were 708 deaths registered in 2019 mentioning cocaine on the death certificate, an increase from 637 deaths registered in 2018.

Cocaine (powder and crack) purity and availability have been rising for several years and are currently high by historical standards. As well as more crack being taken by heroin users, there are signs of newer crack users who are not using heroin.

The latest data from the Unlinked Anonymous Monitoring survey shows that the number of current injectors reporting crack injection remains high in England and

Wales. In 2019, 59% of current injectors in England and 47% in Wales reported injecting crack in the last 4 weeks.

The problem drug using population in Glasgow is increasingly injecting powder cocaine, and this has been linked to a rise in HIV transmission. In 2019, the proportion of people starting drug treatment whose main drug was powder cocaine was higher in Scotland than in England or Wales for the first time.

3.2 MDMA and ecstasy

Key clinical messages

MDMA remains widely available. Reported short-term harm can include psychiatric (anxiety, confusion and psychosis) and physical (liver, kidney and heart problems) symptoms. Other substances are sometimes sold as MDMA or ecstasy such as n-ethyl-pentylone, a synthetic cathinone.

Latest evidence

Harm associated with MDMA use has been increasing among younger people in recent years. Deaths registered involving MDMA in England and Wales increased from 56 in 2017 to 92 in 2018. The increase in deaths was primarily in the under 30s. In 2019, the number of registered deaths involving MDMA decreased to 78.

Of everyone starting drug treatment in England, Wales and Scotland in 2019 who reported MDMA as their main problem drug, 16% were aged under 15 and 69% were under 20.

3.3 Synthetic cathinones

Synthetic cathinones include mephedrone, alpha-PVP, n-ethyl-pentylone and MDPHP.

Key clinical messages

Use of synthetic cathinones has decreased among the general population over the past decade.

Clinical management should follow existing stimulant protocols.

Latest evidence

The number of seizures of synthetic cathinones in England and Wales has fallen since 2018.

There were 14 deaths registered involving synthetic cathinones in England and Wales in 2019.

4. Sedatives and dissociatives

4.1 Benzodiazepines

Benzodiazepines and their analogues include diazepam (Valium), alprazolam (Xanax), etizolam, diclazepam and flualprazolam.

There is increased availability and use of illicitly manufactured ‘street’ benzodiazepines and their analogues, including alprazolam, etizolam, flualprazolam, flubromazolam and temazepam. These substances are often sold as diazepam or alprazolam (Xanax).

Newer street benzodiazepines may not be detected in regular drug screens. The strength and toxicity of new benzodiazepines and their analogues can be unpredictable, and they are often more potent than diazepam.

Benzodiazepine use is particularly prevalent in Scotland and Northern Ireland. Street benzodiazepines, particularly etizolam, are often used by people who use opioids such as heroin in Scotland. Etizolam is increasingly being identified in England and Wales and may be sold as Xanax.

Latest evidence

Reports of benzodiazepine-related harm in England have been increasing in recent years, notably in the north-east, north-west and south-west.

In July 2020 PHE issued a national alert containing advice on the availability and harm from illicit drugs sold as benzodiazepines, particularly when used with alcohol and drugs which have a respiratory depressant effect (including gabapentinoids and opioids).

There is significant evidence that some illicit drugs sold as benzodiazepines are causing harm. Information from toxicology results and police seizures shows that illicit tablets sold as diazepam, temazepam and alprazolam have been linked to recent hospitalisations and deaths.

Tablets known as or marked with ‘DAN 5620’ (on one side) and ‘10’ (on the other), ‘T-20’, ‘TEM 20’, ‘Bensedin’ and ‘MSJ’ may contain dangerously potent benzodiazepines such as flubromazolam, flualprazolam, etizolam, clonazolam or phenazepam. Most of the tablets causing concern are blue (but they come in various colours) and these may stain people’s mouths.

If you are in contact with people who use drugs, you should be alert to the increased possibility of overdose from illicit benzodiazepines, so you can raise awareness, recognise possible symptoms of overdose and respond appropriately. The alert provides information and advises on the appropriate actions to take, including information to share with people who use drugs or are at risk of taking these drugs.

Street benzodiazepines were involved in 675 of the 1,187 drug-related deaths registered in Scotland in 2018. Etizolam was involved in 548 of these cases, most of which also involved opioids. The number of deaths registered in England and Wales involving benzodiazepines increased slightly from 366 in 2018 to 373 in 2019 and deaths involving benzodiazepine analogues increased from 9 to 26.

Flualprazolam and flubromazolam are increasingly being identified in the UK market and are reported to have a higher potency than alprazolam. In July to September 2020, 22% of samples purchased as alprazolam submitted to the Welsh Emerging Drugs and Identification of Novel Substances (WEDINOS) project contained flualprazolam, with 48% containing alprazolam.

Etizolam and flualprazolam became subject to international control under the United Nations (UN) Convention on Psychotropic Substances 1971 in November 2020.

4.2 Ketamine

Key clinical messages

Ketamine use has increased over recent years. You should ask patients reporting ketamine use about urological symptoms of ‘ketamine bladder’, including polyuria, dysuria and haematuria.

Latest evidence

There have been recent increases in ketamine-related police seizures, numbers of people starting treatment for ketamine use, and prevalence of ketamine use in the last year among people aged 16 to 24.

4.3 Nitrous oxide (N_2O)

Key clinical messages

Heavy and repeated use of N_2O has been associated with severe peripheral neuropathy and rarely sub-acute combined degeneration of the spinal cord.

Latest evidence

Reports link heavy N_2O use to peripheral neuropathy (up to 75 cannisters per day).

5. Opioids

5.1 Synthetic opioids

Synthetic opioids detected in global drug markets include fentanyls, U-type opioids, AH-7921 and MT-45.

Key clinical messages

Synthetic pharmaceutical and illicit opioid use continues to be reported. The most common is fentanyl which can either be diverted from medical sources or illicitly manufactured. Some synthetic opioids (such as carfentanil) are highly potent, although they are rarely seen in the UK at present.

Synthetic opioids may be mixed with (or substituted for) heroin, resulting in users unknowingly consuming them. Synthetic opioids may also be substituted for other opioids in counterfeit medicines.

You should consider possible synthetic opioid intoxication if patients present with signs and symptoms of severe opioid intoxication. Toxicology to confirm the substance(s) involved will support intelligence gathering.

Clinical management of synthetic opioid intoxication should follow existing opioid intoxication protocols.

You should continue to use naloxone for all suspected opioid overdoses. Multiple doses of naloxone, or naloxone infusion, may be needed in acute settings. These may be more likely to be needed if highly potent synthetic opioids have been used.

Risk of fentanyl toxicity through skin absorption is low. However, PHE has published guidance for clinicians to reduce the risk of exposure.

See the heroin section below for information on concurrent use of opioids with pregabalin, gabapentin and benzodiazepines, and the related overdose risk.

Latest evidence

In England and Wales there were 59 deaths registered involving fentanyl, one death involving fentanyl analogues and one involving novel opioids in 2019. All of these figures represented decreases from 2018. Twelve fentanyl deaths were registered in Scotland in 2018. The number of deaths attributed to synthetic opioids (including fentanyl) in the UK remains very low compared to heroin, although this may be underestimated due to inconsistent post-mortem toxicological screening.

Adulteration of opioids and other drugs with fentanyl and its analogues is an established and common practice among suppliers in North American drug markets

where these substances kill more drug users than other opioids like heroin. This is not currently the case in the UK but there is a clear need for vigilance.

5.2 Heroin

You should continue to treat overdose from heroin and other opioids with naloxone. Pregabalin, gabapentin and benzodiazepines are increasingly implicated in overdose as they are widely consumed by drug users alongside opioids.

Deaths related to heroin are at or near all-time highs in England and Wales, Scotland and Northern Ireland. The average purity of street-level heroin has been high in recent years.

Latest evidence

The number of deaths registered in 2019 in England and Wales that involved heroin and morphine decreased slightly, from 1,336 in 2018 to 1,329, but was still the second highest on record.

The latest NDTMS statistics show that there was a 6% increase in deaths of opiate users in treatment this year (from 1,897 to 2,010). All other substance groups saw a decrease in deaths compared to the previous year.

6. Synthetic cannabinoid receptor agonists (SCRAs)

People who use SCRAs will often call them ‘spice’ or ‘mamba’.

Key clinical messages

SCRA use is most prevalent in prisons across the UK. Use of SCRAs among the general population is now low. Homeless populations are still known to be using SCRAs, although prevalence is less well documented.

SCRAs are a diverse group of chemicals sold in a range of strengths. All are agonists for the CB1 receptor. Some SCRAs may also work at other receptors. The chemicals sold are frequently changing, so harms are difficult to predict.

The harms from SCRAs are often very different to those seen with herbal cannabis. SCRA toxicity can be severe, requiring management in intensive care units, and may be fatal.

SCRAs can be vaped. Experts advise against using illicit and unregulated vaping products or adding substances to vaping fluids.

Latest evidence

MDMB-4en-PINACA, 4F-MDMB-BINACA and 5F-MDMB-PICA have been the most seized SCRAs in drug seizures analysed in England and Wales in the first half of 2020. There are claims that these substances are more potent than and have different effects to other SCRAs.

MDMB-4en-PINACA and 5F-MDMB-PICA have been associated with increased ambulance callouts in an area of north-west England in 2020. MDMB-4en-PINACA has also been increasingly identified in toxicology in a hospital in the West Midlands.

In 2019, SCRAs were mentioned on the death certificate in 56 deaths registered in England and Wales, a similar number to 2018 (60) and more than double the number registered in 2017 (25). This is despite signs of decreased use of these substances compared to previous years. There were 2 deaths involving SCRAs in Scotland in 2018.

The drugs known as 5F-MDMB-PICA and 4F-MDMB-BINACA are now subject to international control under the UN Convention on Psychotropic Substances 1971. The European Monitoring Centre on Drugs and Drug Addiction (EMCDDA) are currently intensively monitoring MDMB-4en-PINACA (July 2020) and 4F-MDMB-BICA (September).

7. Other substances

7.1 Gabapentinoids

Gabapentinoids include gabapentin (Neurontin) and pregabalin (Lyrica).

Key clinical messages

Prescriptions for pregabalin and gabapentin are increasing. Gabapentinoids are licensed for the treatment of epilepsy, neuropathic pain and, in the case of pregabalin, generalised anxiety disorder.

Gabapentinoids may be misused to increase the effects of opioids. They can lower opioid tolerance and induce respiratory depression at high doses. Opioids are often present in deaths involving gabapentinoids.

Latest evidence

Registered deaths in England and Wales involving gabapentinoids have been increasing. Between 2017 and 2019, the number of deaths involving pregabalin increased from 136 to 244, and for gabapentin increased from 60 to 89.

In Scotland, the number of gabapentin- and pregabalin-related deaths rose from 142 to 194 and from 120 to 211 respectively over the same period.

There were 54 deaths involving pregabalin in Northern Ireland registered in 2018, an increase from 9 in 2016.

7.2 2,4-Dinitrophenol (DNP)

Key clinical messages

DNP is a toxic chemical which has fat-burning properties and is sometimes used by body builders or by others seeking weight reduction. DNP interferes with cellular metabolism and prevents energy being stored as fat. Instead the energy is released as heat. These effects are toxic to the cells of organs such as muscle, kidney and brain. Toxic effects are more common with higher doses.

There is a myth that if DNP is used in small amounts, users will be safe. Although toxicity is common after overdose, severe and even fatal adverse effects have occurred when the drug has been taken in the doses recommended on websites or by suppliers.

If you suspect DNP toxicity, you need to urgently refer the patient to hospital. If you are dealing with people suspected of consuming DNP, you should seek advice on clinical management from the National Poisons Information Service (NPIS) by referring to TOXBASE. You can call the NPIS on 0344 892 0111.

You should also inform patients of the dangers and tell them to stop using DNP immediately.

Latest evidence

From 2007 until the end of July 2020, there have been 137 separate episodes of systemic DNP exposure discussed with the NPIS. Of these, 25 (18%) are known to have died. During 2019, the NPIS recorded 14 cases of DNP toxicity and 4 deaths, both slight decreases from 2018 (20 cases, of which 6 were fatal).

From 2007 until the end of September 2020, there have been 139 separate episodes of systemic DNP exposure discussed with the NPIS. Of these, 26 (19%) are known to have died. Between January and September 2020, the NPIS recorded 7 cases of DNP toxicity and 2 deaths. This is a small reduction from 10 cases and 3 deaths in the equivalent period in 2019.

8. General clinical advice and updates

The chemical makeup of new psychoactive substances (NPS) varies widely so you should treat acute presentations based on the symptoms at clinical presentation.

NPIS's TOXBASE has a symptom search function, which is useful if you do not know which drug was taken. Always ask about the use of other drugs and alcohol.

Poly-substance use is common and may influence clinical presentation. If the actual substance taken is not known, consider treating according to broad psychoactive effect (for example sedative, dissociative, stimulant or hallucinogenic).

Project NEPTUNE provides guidance on the clinical management of acute and chronic harms of club drugs and NPS and free e-learning modules.

Drug misuse and dependence: UK guidelines on clinical management, also known as the Orange Book, contains some information on the clinical management of people seeking treatment for NPS use.

PHE has published guidance on NPS use for substance misuse commissioners and separate guidance on NPS use for prison staff.

Manchester Health and Care Commissioning has produced a Spice information sheet, which provides information on common SCRAs, effects and treatment.

PHE has published evidence-based recommendations to protect first responders from exposure to fentanyl.

9. Recent statistics and other data sources

Home Office report on drug use prevalence (this is the latest report): Drug misuse: findings from the 2019 to 2020 Crime Survey for England and Wales.

PHE's latest statistics on alcohol and drug treatment (November 2020): Substance misuse treatment for adults: statistics 2019 to 2020

NHS Digital's prevalence data for young people (this is the latest report): Smoking, drinking and drug use among young people in England in 2018.

The Scottish Government's prevalence data for young people (this is the latest report): Scottish Schools Adolescent Lifestyle and Substance Use Survey 2018.

PHE's latest statistics on infections among people who inject drugs (October 2020): Unlinked Anonymous Monitoring (UAM) Survey of HIV and viral hepatitis among people who inject drugs (PWID) in 2019.

The Office for National Statistics latest report (October 2020) Deaths related to drug poisoning in England and Wales: 2019 registrations.

The National Records of Scotland report Drug-related deaths in Scotland in 2018 (this is the latest report).

The European Monitoring Centre for Drugs and Drug Addiction's latest (September 2020) European Drug Report 2020.

In 2020, the Advisory Council on the Misuse of Drugs published Misuse of fentanyl and fentanyl analogues and Novel benzodiazepines: a review of the evidence of use and harms of novel benzodiazepines.