sourcing these drugs from a pharmacy/high street shop despite these drugs being prescription-only medicines in the UK.

Conclusion: Non-medical use of pregabalin, gabapentin and baclofen was uncommon in this survey. A variety of sources were reported, the most common was a prescription from a medical practitioner. More work needs to be undertaken to understand this, to determine the most effective interventions for prescription medicine misuse.

Reference

1. Extent and trends in illicit drug use among adults: Drug misuse 2013–2014. Available at: https://www.gov.uk/government/statistics/tables-for-drug-misuse-findings-from-the-2013-to-2014-csew [accessed 11 Nov 2014].

311. Chronic pain and non-medical use of opioids, benzodiazepines and pregabalin in an online national survey in the UK

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Objective: To investigate the relationship between chronic pain and use of illicit drugs and non-medical use of prescription drugs in an online national survey in the UK.

Methods: The survey was undertaken in July 2014 using an online market research company. Data analysed for this study was: whether the individual had experienced chronic pain ("pain lasting for at least 3 months that either occurs constantly or flares up frequently"), prevalence of illicit drug use, and prevalence of non-medical use of prescription drugs (use without a doctor's prescription or for any reason other than recommended by a doctor).

Table 1. Relationship between reported chronic pain and the prevalence of lifetime use of illicit drugs and non-medical use of prescription drugs.

	Chronic Pain		
	Yes N (%)	No N (%)	P-value
Lifetime use of illicit drugs			
Yes	357 (31.5)	336 (24.6)	
No	775 (68.5)	1031 (75.4)	< 0.0001
Lifetime misuse of any prescription drug			
Yes	511(45.1)	473(34.6)	
No	621(54.9)	894(65.4)	< 0.0001
Lifetime misuse of opioids			
Yes	507 (44.8)	461 (33.7)	
No	625 (55.2)	906 (66.3)	< 0.0001
Lifetime misuse of benzodiazepines			
Yes	34 (3.0)	23 (1.7)	
No	1098 (97.0)	1344 (98.3)	0.0311
Misuse of pregabalin/gabapentin			
Yes	13 (1.1)	2 (0.1)	
No	1119 (98.9)	1365 (99.9)	0.0013

Data on lifetime non-medical use of prescription drugs was studied for opioids, benzodiazepines and pregabalin/gabapentin. Fisher's exact test was used to determine statistical significance with an alpha level of ≤ 0.05.

Results: In total 2,499 respondents completed the survey; the mean $\pm$ SD age was 48.0 ± 15.6 years and 49.9% were male. In total 693 (30.8%) reported lifetime use of an illicit drug and 984 (39.4%) reported lifetime non-medical use of a prescription drug. Chronic pain was reported by 1,132 (45.3%) respondents. As shown in Table 1, lifetime use of illicit drugs and non-medical use of prescription drugs were more common in those with chronic pain; reported non-medical use of opioids, benzodiazepines and pregabalin/gabapentin were all more common in those with chronic pain.

Conclusion: Data from this survey suggest that use of illicit drugs and non-medical use of prescription drugs is more common in those with chronic pain in the UK. It is important that clinicians managing patients with chronic pain and those managing patients with drug misuse, including clinical toxicologists, consider this in their clinical assessment. Further work is required to understand the reasons for this association which is important given the high prevalence of chronic pain in Europe and North America.

312. Benzodiazepines and "Z drugs": Reported reasons for non-medical use in an online national survey in the UK

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Objective: To describe reasons for non-medical use of benzodiazepines and "Z drugs" reported in an online national survey in the UK.

Methods: The survey was undertaken in July 2014 using an online market research company. Data analysed for this study was non-medical use of benzodiazepines/Z drugs and reason for this misuse (using pre-formatted criteria; individuals could select multiple reasons), together with misuse of illicit drugs in the last year. The benzodiazepines/Z drugs included in the survey are listed in Table 1. Prevalence of misuse per 100,000 was calculated using the latest UK Office of National Statistics population estimate.

Results: In total 2,499 UK respondents completed the survey; the mean $\pm$ SD age was 48.0 ± 15.6 years, 49.9% were male. The reported use of any illicit drug in the past year (8.6%) was similar to the 2013/14 Crime Survey for England and Wales (8.8%).[1] Non-medical use of at least one benzodiazepine was reported by 57 (2.3%); the reported prevalence of non-medical use was highest for diazepam, followed by temazepam and lorazepam (Table 1). At least one reason for misuse was specified by 48 (84.2%) respondents; of these, 66.7% of individuals reported more than one reason for misuse and the median (IQR) number of reasons for misuse was 2 (1-4). The most commonly reported reason among respondents reporting diazepam, temazepam and lorazepam misuse was "makes me feel good". Other reasons

Table 1. Prevalence of misuse and reasons for non-medical use of benzodiazepines and Z drugs.

Benzodiazepines	Prevalence of non-medical use per 100,000 population	Percent of respondents reporting non-medical use (%)	Number (%) reporting reason for misuse					
			For enjoyment/ to get high	To come down	Makes me feel good	I feel unwell if I don't take it	Out of curiosity	Other reason
Diazepam (n = 36)	0.056	1.4	9 (25.0)	8 (22.2)	16 (44.4)	5 (13.9)	8 (22.2)	13 (36.1)
Temazepam (n = 15)	0.023	0.6	4 (26.7)	2 (13.3)	7 (46.7)	3 (20.0)	3 (20.0)	5 (33.3)
Nitrazepam (n = 9)	0.014	0.4	3 (33.3)	5 (55.6)	4 (44.4)	2 (22.2)	3 (33.3)	0 (0.0)
Zopiclone (n = 9)	0.014	0.4	4 (44.4)	3 (33.3)	3 (33.3)	1 (11.1)	2 (22.2)	3 (33.3)
Zaleplon (n = 1)	0.002	<0.1	1 (100.0)	1 (100.0)	1 (100.0)	1 (100.0)	1 (100.0)	1 (100.0)
Zolpidem (n = 1)	0.002	<0.1	0 (0.0)	0 (0.0)	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)
Oxazepam (n = 2)	0.003	<0.1	1 (50.0)	0 (0.0)	1 (50.0)	1 (50.0)	0 (0.0)	0 (0.0)
Other sedative hypnotics (n = 5)	0.008	0.2	2 (40.0)	2 (40.0)	2 (40.0)	1 (20.0)	3 (60.0)	1 (20.0)
Lorazepam (n = 11)	0.017	0.4	4 (36.4)	2 (18.2)	7 (63.6)	2 (18.2)	4 (36.4)	2 (18.2)
Lormetazepam (n = 2)	0.003	<0.1	0 (0.0)	0 (0.0)	1 (50.0)	0 (0.0)	1 (50.0)	0 (0.0)
Flunitrazepam (n = 3)	0.005	0.1	2 (66.7)	1 (33.0)	1 (33.0)	0 (0.0)	0 (0.0)	3 (100.0)
Etizolam (n = 1)	0.002	<0.1	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)	1 (100.0)	0 (0.0)
Phenazepam (n = 0)	0.000	0	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Alprazolam (n = 5)	0.008	0.2	1 (20.0)	0 (0.0)	3 (60.0)	1 (20.0)	2 (40.0)	1 (20.0)
Flurazepam (n = 6)	0.009	0.2	4 (66.7)	0 (0.0)	4 (66.7)	2 (33.3)	2 (33.3)	1 (16.7)
Other/not-specified benzodiazepine (n = 1)	0.002	<0.1	1 (100.0)	0 (0.0)	1 (100.0)	1 (100.0)	1 (100.0)	1 (100.0)

including "to come down", "for enjoyment/to get high" and "out of curiosity" were also commonly reported as reasons for misuse.

Conclusion: Despite a relatively low prevalence of benzodiazepines misuse, there appear to be multiple reasons for their misuse, with the majority of respondents reporting more than one reason. Understanding the reasons for misuse will enable development of better strategies to reduce benzodiazepine misuse in the UK.

Reference

1. Extent and trends in illicit drug use among adults: Drug misuse 2013–2014. Available at: https://www.gov.uk/government/statistics/tables-for-drug-misuse-findings-from-the-2013-to-2014-csew [accessed 11 Nov 2014].

313. Characterization of acute opioid overdose in the ToxIC Registry

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Objective: The abuse and misuse of prescription opioid analgesics in the USA has risen steeply over the past decade. Trends among gender differences and age groups are described in National Survey data, however, it is self-reported and only includes intentional abuse. Our objective was to compare characteristics of patients reported in the American College of Medical Toxicology's Toxicology Investigator's Consortium (ToxIC) database following opioid overdose. ToxIC is a prospective online registry developed in 2009; currently 46 institutions participate by entering data on bedside consults by medical toxicologists.

Methods: This is a retrospective review of opioid overdoses reported to the ToxIC database. All intentional and unintentional pharmaceutical encounters between 1 October 2010 and 1 November 2014 were reviewed. All cases that listed opioids as a primary agent in the ingestion were included for analysis.

Results: Within the study period 4,818 cases were classified as intentional and 696 cases as unintentional pharmaceutical encounters. Opioids were listed as the primary agent in 553 (11%) of intentional and 58 (8%) of unintentional cases. In the intentional group, the top five agents were oxycodone (n = 148 cases, 27%), methadone (n = 91, 16%), hydrocodone (n = 80, 14%), tramadol (80, 14%) and heroin (n = 41, 7%). Of the unintentional overdoses, the most common agents were buprenorphine (n = 16, 28%), oxycodone (n = 12, 21%), methadone (n = 9, 15%), morphine (n = 6, 10%) and tramadol (n = 5, 9%). Naloxone was administered to 26 patients in the unintentional category and 203 in the intentional overdose category (44.8% versus 36.7% p = 0.22). Males accounted for 305/611 (50%) and females for 306/611 (50%) of opioid encounters overall. Of intentional cases 279 (50%) were males, and 274 (50%) were females. For unintentional overdoses, males accounted for 26 (45%) and females 32 (55%) of cases. The majority of intentional overdoses (483/553, 87%) occurred in adult patients (age greater than 18 years). However, most unintentional exposures were in children less than 7 years of age (34/58, 59%).

Conclusion: The most common opioid encountered in overdose was oxycodone (26% of all cases). There was no significant difference in naloxone use between intentional and unintentional overdoses in this dataset. More than half of unintentional overdoses occurred in patients 6 years of age and under (34/58, 59%); this emphasizes the importance of overdose prevention targeted towards this age group. Opioid overdose reported in the ToxIC database provides important details including types of pharmaceuticals, user demographics and intent and need for treatment. This information can be used to target at risk populations for prevention programs.