

Pregabalin use among a sample of people who inject drugs in Canberra, ACT

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Key findings:

- Between 10-14% of people from Canberra interviewed in 2018-2020 who regularly injected drugs reported past 6 month non-prescribed use of pregabalin. There was no evidence of an increase over the years.
- Those that reported past 6 month use of non-prescribed pregabalin were more likely to have also recently consumed alcohol, non-prescribed alprazolam, non-prescribed other benzodiazepines and non-prescribed pharmaceutical opioids compared to those that had not used any pregabalin recently.

Introduction

Pregabalin is a drug that is prescribed in Australia for the treatment of neuropathic pain. There have been increasing reports of extra-medical use of pregabalin (1) and dependence (2). Further, pregabalin has been associated with suicidal behaviours and unintentional overdoses (3). In addition, previous research has shown that non-prescribed pregabalin use was relatively common among a national sample of people that regularly inject illicit drugs (4) and co-ingestion with opioids, benzodiazepines and alcohol was prevalent (5), potentially increasing the risk of overdose. The aims of this bulletin are to: 1) provide a brief update on prescribed and non-prescribed pregabalin use among people in Canberra, ACT that regularly inject drugs, and 2) describe characteristics of those who use non-prescribed pregabalin.

Method

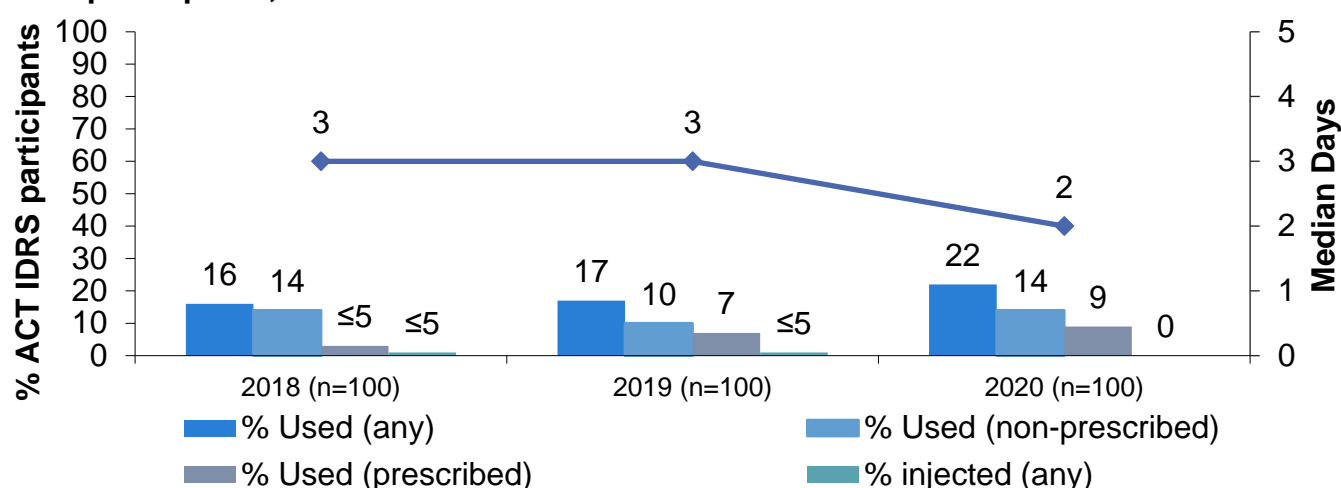
Interviews were conducted with people who inject illicit drugs ($n=100$ per year) recruited in Canberra, ACT via word-of-mouth and health services between April – August 2018-2020. Participants were a minimum of 17 years old (18 years in 2020), had lived in Canberra for at least 10 of the 12 months preceding interview, and had injected drugs on a monthly or more frequent basis in the past 6 months. Interviews were conducted face-to-face, except for 2020 where phone interviews took place due to COVID-19 restrictions.

Descriptive statistics and year on year analyses were computed for Aim 1. For Aim 2, data from 2018-2020 were combined and repeat participants were excluded, resulting in a final sample size of 245 (2020: $n=82$; 2019: $n=63$; & 2018: $n=100$). We identified two main groups: i) people who had not used any pregabalin in the 6 months preceding interview ($n=196$) and ii) people who use non-prescribed pregabalin only (as opposed to a mixture of non-prescribed and prescribed) in the 6 months preceding interview ($n=30$). Data from people who use prescribed pregabalin only ($n=16$) are presented but are not compared to these groups as the sample size was low (Table 1). People who reported use of both prescribed and non-prescribed pregabalin were excluded from analyses from Aim 2 due to small numbers reporting this behaviour ($n\leq 5$). Chi-square analyses were conducted to test for difference in categorical variables, and Mann-Whitney U test for continuous data. The significance level was set at $p<0.05$.

Results: Past six month pregabalin use

- Out of the 300 participants sampled between 2018-2020, nearly one-in-five (18%) reported past 6 month use of pregabalin and just over one-in-ten reported non-prescribed use (13%).
- There were no significant year-on-year differences from 2018 onwards in regards to the per cent reporting prescribed, not prescribed and any (prescribed and/or non-prescribed) use of pregabalin in the past six months (Figure 1).
- A very low per cent reported injecting any form of pregabalin in the past 6 months in 2018 and 2019, with no participants reporting this behaviour in 2020 (Figure 1).
- Frequency of non-prescribed pregabalin use was low (median 2-3 days use in the past 6 months between 2018-2020) (Figure 1).
- The majority (71%) of participants who reported past six month pregabalin use in the 2020 sample said that their use of non-prescribed pregabalin remained stable since March 2020 (since COVID-19 restrictions) as compared to before.

Figure 1. Recent pregabalin use and frequency of use among the total sample of ACT IDRS participants, 2018-2020



Note. * $p < 0.050$; ** $p < 0.010$; *** $p < 0.001$ for year on year analyses. Median days computed among those who reported past 6 months use. Median days rounded to the nearest whole number. Secondary Y axis reduced to 5 days to improve visibility of trends. Participants were first asked about pregabalin in 2018.

Results: Factors associated with non-prescribed pregabalin use

- In terms of characteristics, there were no significant differences in age, gender, employment or education between those that used non-prescribed pregabalin in the past six months versus those that had not used pregabalin (Table 1).
- No significant differences were found in past-month injecting frequency, past six month use of heroin or methamphetamine, current engagement in drug treatment, past six month mental health problems and past 12 month non-fatal overdose (Table 1). Although to note, some non-significant findings may be due to small sample size.
- However, those that reported past six month non-prescribed use of pregabalin were more likely to have also recently consumed alcohol, non-prescribed alprazolam, non-prescribed other benzodiazepines and non-prescribed pharmaceutical opioids compared to those that had not used any pregabalin (Table 1).
- Whilst numbers reporting prescribed pregabalin use were small and thus formal comparison to those reporting non-prescribed pregabalin use was not possible, it is important to note that the per cent reporting recent use of non-prescribed pharmaceutical opioids was similar between these two groups.

Results Cont.

Table 1. Profile of pregabalin use, IDRS sample, 2018-2020[^]

	No past 6 month use (n=196)	Past 6 month non-prescribed use only (n=30)	No use vs. non-prescribed use <i>p</i>	Past six months prescribed use only (N=16) ^a
Demographics				
Median age (years; IQR)	43 (38-49)	39 (33-48)	0.093	46 (38-55)
Male (%)	68	63	0.583	50
Any paid employment (%)	13	10	0.670	0
Median grade school (IQR)	10 (9-12)	10 (9-12)	0.438	11 (7-12)
Post-school qualification (%)	53	53	0.978	81
Drug-related behaviours				
Current drug treatment (%)	56	50	0.565	50
Past 6 month mental health problems (%)	46 ⁺	36 ⁺	0.317	50
Past 12 month drug overdose (%)	19 ⁺	25 ⁺	0.437	n≤5
Past month ≥daily injecting (%)	43	40	0.768	38
Past 6 month drug use				
Any heroin (%)	78	83	0.511	69
Any methamphetamine (%)	76	83	0.392	81
Any alcohol (%)	61	80	0.039	69
Any non-prescribed alprazolam (%)	10	27	0.011	n≤5
Any non-prescribed other benzodiazepines (%)	23	40	0.040	n≤5
Any non-prescribed pharmaceutical opioids (%)	36 ⁺	57	0.023	63

Note. ^aNo comparisons were conducted for the prescribed group versus non-prescribed/no use group because the sample size for the former was too small. People who reported use of both prescribed and non-prescribed pregabalin were excluded (n≤5). [^]Data combined between 2018-2020 and repeat participants excluded. ⁺Not out of the whole subsample due to missing responses. 'Non-prescribed pharmaceutical opioid' includes: methadone, phylseptone, buprenorphine, buprenorphine-naloxone, oxycodone, morphine, fentanyl, tapentadol, codeine and tramadol. Tramadol was asked from 2019 onwards. Statistically significant values (*p* < .050) are bolded.

Conclusion

This study confirmed previous Australian research (e.g., 4) showing that pregabalin use is relatively common among people who inject drugs (e.g., around one-in-five participants). Indeed, approximately one-in-ten participants sampled from Canberra, ACT reported recent non-prescribed use of pregabalin in each year from 2018-2020, although frequency of use was low. Although participants weren't asked about their motivations for use, our findings align with previous research which suggests that pregabalin might be used extra-medically to relieve symptoms of withdrawal from opioids and benzodiazepines (6), to manage chronic pain (7), and for the intoxication and euphoric effects (7), further research into patterns of, and motives for, non-prescribed use is warranted.

Those who recently used non-prescribed pregabalin were more likely to have consumed alcohol, non-prescribed alprazolam, other non-prescribed benzodiazepines and non-prescribed pharmaceutical opioids compared to those who had not recently used pregabalin. Whilst small numbers precluded comparison of those who used prescribed pregabalin only to those who had only used non-prescribed pregabalin, it is important to note that the former group also recorded a higher per cent reporting use some of these depressant drugs (e.g., pharmaceutical opioids). However, it should be noted that our data does not measure whether these substances were used at the same time.

Pregabalin is classified as a depressant, hence co-ingesting pregabalin with other depressants, such as alcohol, benzodiazepines and or other opioids, increases the risk of overdose. Whilst we did not observe an association between non-prescribed pregabalin use and overdose in this sample, it is important to continue to monitor pregabalin consumption among the IDRS sample because of this risk, and to promote harm reduction messages around avoiding consuming pregabalin with other depressant drugs.

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