Consultation paper

Renewing Queensland's Alcohol and Other Drugs Plan

Impact of the COVID-19 pandemic on alcohol and drug use

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– Not Government Policy –

Alcohol and Other Drugs (AOD) in Queensland

The coronavirus (COVID-19) pandemic has been a worldwide crisis that has led to drastic changes in the way we live. Within Australia, the government introduced 'lockdown' measures in late March [1]. Fortunately, these measures have helped control the spread of infection, particularly in Queensland, and some restrictions have been eased. However, future outbreaks are likely to occur, and it is highly probable that restrictions will be reinstated within certain regions until a longer-term solution – such as a vaccine – is developed. Researchers globally are examining the fallout caused by the COVID-19 crisis to help inform changes to policy and healthcare.

A major area of concern is the impact of the pandemic on patterns of alcohol and other drug (AOD) use. While the use of alcohol to cope with social distancing and lockdown has been the source of many jokes and memes on social media, it is critical to understand how substance use has been affected by the pandemic from a public health perspective. The stress, social isolation, financial pressure and uncertainty caused by COVID-19 has had an adverse impact on the mental health of Australians. This is likely to have also increased AOD use, which in turn may increase effects on mental health and wellbeing and the risk of COVID-19 transmission itself.

Patterns of use through the pandemic

What does the contemporary evidence indicate about the issue?

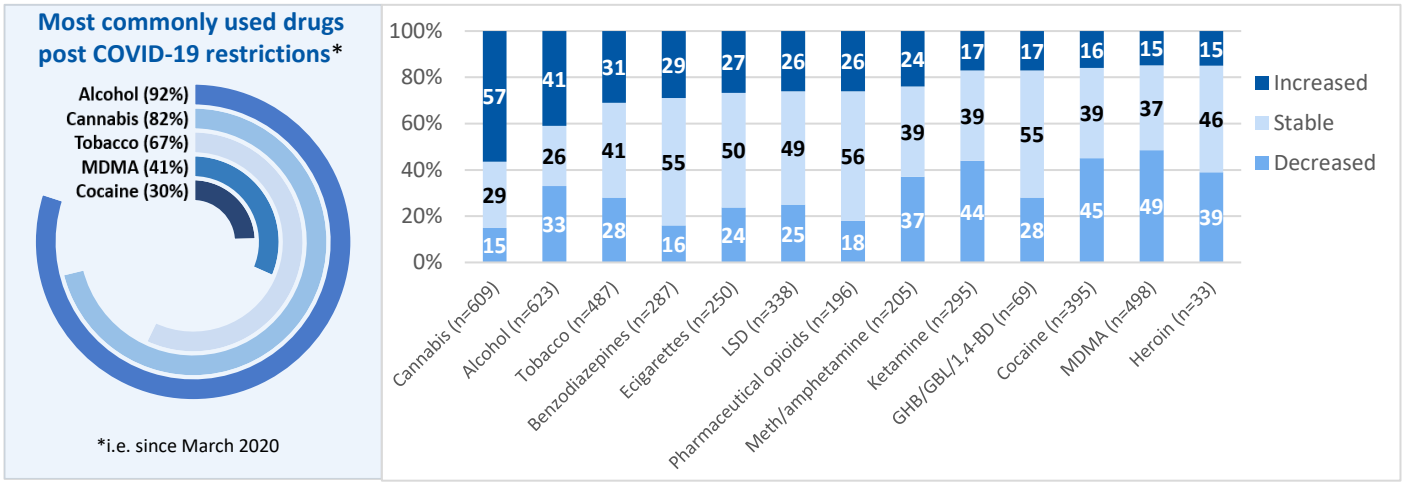
Patterns of AOD use during and after the pandemic are likely to vary across different substances. The data reported in this paper were collected between April and July 2020 to track substance use patterns among people who regularly use illicit drugs. The data were collected as part of the following projects: The Australians' Drug use - Adapting to Pandemic Threats (ADAPT) study [2], the Ecstasy and Related Drugs Reporting System (EDRS) [3], and the Illicit Drug Reporting System (IDRS) [4]. We draw some comparisons with data from two general-population studies: the Australian Institute of Health and Welfare's National Drug Strategy Household Survey (2019) [5] and the Understanding Social Impacts of COVID-19 (USIC) study [6]. The data presented are from Australian samples unless noted as Queensland-specific. The trends in the national data align with Queensland data.

The drugs most commonly consumed after the start of pandemic restrictions among Australians who regularly use drugs were: alcohol (92%), cannabis (82%), tobacco (67%), MDMA/ecstasy (41%), and cocaine (30%) [2], as shown

in the Figure below. Cannabis and alcohol use increased between April and June among these groups [2, 3], with increased use also noted by drinkers and smokers in the general population. These increases contrast with previously declining trends in use noted by the National Household Drug Strategy [5]. Drugs with a reported decrease in use during the pandemic were MDMA, cocaine, and ketamine (see Figure below).

In terms of injecting drug use, pandemic restrictions had limited effect on the majority of those Queenslanders who regularly inject drugs. More than half reported no change in heroin (57%) or methadone (75%) injection [4], as shown in the Figure below. Just over 40% of people who inject methamphetamines regularly also reported no change due to the pandemic, but 37% reported using less than usual. The majority of Australians who used methadone reported no change in their injecting (75%), as did 43% of those taking buprenorphine/naloxone.

Twenty-nine per cent of those using buprenorphine reported injecting more [4]. Figures have been reproduced from the ADAPT bulletin [2].



Mechanisms in behavioural patterns of AOD use

Changes in AOD use due to the pandemic are not linear and use may increase or decrease for different people and across different drugs. Two long-term trajectories of AOD use have been suggested as a consequence of the pandemic [7]. Firstly, AOD use will reduce for some individuals as a direct result of restricting social interactions and events, while substance use in others (likely those who are most dependent) may increase as a consequence of greater stress, financial pressure, and uncertainty caused by the pandemic. In order to make meaningful changes to policy and care, it is imperative to understand what factors may lead someone to use substances problematically during the pandemic.

Psychological

COVID-19 has increased levels of stress, psychological distress, and worry across the population [8]. These psychological factors have all been strongly correlated with AOD use. Heightened levels of psychological distress have been observed among people with a positive COVID-19 test result and their immediate families, as well as the rest of the general population who have not been directly impacted [8]. Surveys of people who use AOD found that 31%-38% rated their mental health as worse or much worse than before the pandemic [3, 4]. Individuals experiencing high levels of distress are more likely to be using AOD (e.g. alcohol [9]) as a means to cope with stress and boredom, which is likely to worsen mental health in the longer term [10]. AOD use exacerbated by psychological distress may be triggered by future uncertainty, and situational factors [7].

The most common reasons for increased use among people who inject heroin or methamphetamines were: being anxious or depressed about COVID-19, loneliness, boredom, having more money, having more time, and spending more time with fellow people who inject drugs [4].

However, anxiety and worry may also decrease use. COVID-19 concerns were one of the most commonly cited reasons for reducing heroin use during the pandemic. Other reasons were related to the lower quality/potency of heroin and other drugs being more accessible.

Situational

The pandemic has created situations that affect patterns of AOD use behaviour. Alcohol use could decline due to tighter budgets and the closure of businesses where alcohol is consumed (e.g. bars and clubs) [7]. Use of substances that involves a social aspect [11] could decline because people are not meeting up in social settings that promote such use. The closure of social spaces and cancellation of social events such as music gigs and festivals are also likely to have reduced the recreational use of illicit drugs. For example, the lack of social interactions at clubs and festivals has been cited as a key reason for the decrease in MDMA use [2].

However, some people may have had more time and opportunities for AOD use at home alone, or with people they live with. In-person sales and dealings of alcohol and other drugs have reduced due to social distance policies, but online sales and marketing have increased. The alcohol industry for instance, has been quick to capitalise on the pandemic. A recent investigation of social media found one alcohol advertisement every 35 seconds [12]. The key themes of the advertisements were: easy access to alcohol without leaving home (58%), save money (55%), buy more (35%), drink alcohol during the pandemic (24%), and use alcohol to cope (16%) [12].

Alcohol and tobacco have been available from retail outlets throughout the lockdown period under the 'essential goods' umbrella, which has enabled access to these substances despite the closure of bars, clubs, and social events where they are typically used. In the lead up to the closure of bars and clubs on 22 March in Queensland, sales of alcohol in Australia increased by 37% [13]. Other countries observed similar increases in the lead up to lockdown, such as in the UK (22% increase) [14], and the USA (a 55% increase) [15]. Global tobacco sales also increased, including within Australia [16]. Increases in alcohol sales may reflect stockpiling in preparation for lockdown.

People may have bought a supply of alcohol in bulk after exposure to the advertisements and/or in anticipation of reduced access throughout the crisis. Despite the closure of licensed premises, liquor licensing restrictions were temporarily relaxed in Queensland to allow restaurants and bars to sell alcohol by takeaway and home delivery [17]. The availability of AOD at home may increase the frequency and amount used; such increases were noted among all recent studies.

Access to illicit drugs

The pandemic may impact methods of accessing different types of AOD, which affects patterns of use. One study found 23% of people who take illicit drugs had concerns about their ability to access them during pandemic restrictions, while 14% looked for information on how to manage the impacts of restrictions on drug access (e.g. withdrawal or lack of equipment) [3]. People who inject drugs most commonly cited decreased availability as the reason for using less [4]. However, stable access and continued use have been reported for pharmaceutical opioids, GHB, benzodiazepines, e-cigarettes, and LSD [2, 3]. Most reported no change in their usual means of obtaining illicit drugs (63%), with the majority continuing to receive drugs in person (76% in February, 66% in June) [2, 3]. There has been an increase in having drugs delivered (36% in February, 41% in June) [2]. One in four reported stockpiling illicit drugs [2, 3]. A minority reported obtaining illicit drugs less (14%) [3] or not at all (4% in February, 10% after February) during restrictions [2]. Emerging evidence from states where more stringent social/movement controls are in place suggests that availability may be more affected as time goes on.

Potential impacts of the pandemic

The impacts of the pandemic on AOD use, demand, and availability are likely to be vast, and to disproportionately affect those who are the most dependent and have the poorest health and financial outcomes.

There is a wealth of evidence linking AOD use to harmful effects on health, which may mean they are at higher risk of more severe COVID-19 symptoms. Smoking, which is common among people who use AOD, is a particular concern due to wide-scale use and detrimental effects on lung health. Smaller-scale coronavirus outbreaks in the past, such as Middle East Respiratory Syndrome-coronavirus (MERS-CoV), have shown a higher mortality rate in regular smokers [18, 19]. Early evidence of patients in China has indicated that current and former smokers were more likely to experience more severe symptoms and greater risk of death [20]. Preliminary observations from critically ill COVID-19 patients in Australian intensive care units support this link [21].

People with severe substance dependence are more likely to have comorbid physical health problems and elevated stress levels, which heightens their risk during the pandemic [22]. For example, alcohol lowers immune functioning, therefore reducing the ability to fight off the virus [23]. COVID-19 also affects the liver, which is particularly concerning for individuals with alcohol-induced liver disease and damage [23]. For opioid use, there may be a heightened risk of overdose (respiratory depression) due to the effects of COVID-19 on the respiratory tract [22, 24]. COVID-19 symptoms may also be mistaken for opioid withdrawal, leading people to use more than intended.

Methamphetamine use is linked to pulmonary hypertension, which can lead to COVID-19 complications. Long-term reductions in access to AOD may also lead to reduced tolerance, which could heighten the risk of overdose if access is resumed once restrictions are eased.

More generally, individuals with substance use disorders are more likely to experience greater insecurity around housing, food, and finances, which limit the ability to follow social distancing or quarantine measures during the pandemic [25].

How can the issue be addressed from a policy perspective?

AOD use is likely to coincide with greater psychological and situational pressures, particularly for those who are already at risk of substance dependence. People with severe levels of dependence are also faced with multiple barriers to receiving health care and are more likely to prioritise using substances above their own health. Such individuals are at disproportionately higher risk of contracting the virus and experiencing severe or fatal symptoms. Changes in policy could safeguard these individuals from the negative consequences of COVID-19, and potentially enhance their quality of life throughout this challenging period. More broadly, reducing the disease burden of problematic substance use during the pandemic will also likely alleviate pressure on already-strained healthcare systems coping with the virus.

What are the pros and cons of responses, examples where the policy has been well managed, and the options for Queensland to improve outcomes?

The Queensland Government has already taken action to reduce the harms associated with substance use; for example, by using social media platforms to encourage quit attempts by delivering information on how smoking can increase the risks of COVID-19 [26]. This is in line with World Health Organisation recommendations to encourage quitting through quit lines, cessation programs, and nicotine replacement therapies [27].

The World Health Organisation has also discouraged alcohol use through the release of factsheets addressing myths ('Alcohol does not protect against COVID-19') and providing information about the negative health consequences of alcohol use, including increased vulnerability to COVID-19 [28, 29]. They have also encouraged governments to restrict access to alcohol, particularly during lockdowns [29].

Harm reduction

Evidence-based information from health experts is required to share "safe-use" messages; for example, not sharing equipment with reference to COVID-19. Hand washing before and during substance use should be highlighted, particularly for administration routes that may facilitate viral transmission through the nose and mouth. People should be advised to sanitise or wash any equipment received when picking up substances face to- face, and to ensure that meetings are socially distanced. To reach the most vulnerable groups (such as those who are homeless), sanitiser and advice could be provided through support services, in addition to educating individuals around spotting symptoms of COVID-19 so they can seek help as quickly as possible. People who use AOD may be actively seeking out "safe-use" information. It is a good opportunity to promote traditional infection and harm-reduction messages, such as to avoid sharing or re-using needles/syringes.

The pandemic has also impacted drug availability and consequently purity, which could be potentially harmful or fatal. For example, heroin was found to contain more adulterants such as novel psychoactive substances (new and uncontrolled psychotropic or narcotic drugs), crack cocaine, and amphetamines during the pandemic in Europe [30]. Drug shortages due to restrictions on travel may lead suppliers to mix substances with questionable or more affordable alternatives, which make it difficult for people to know exactly what they are taking, and how much. Warnings should be issued, in addition to providing greater access to resources for testing purity.

Licensing and regulations

Retailers claim to have experienced up to 500% increases in online sales of alcohol, where large quantities can be purchased and delivered to the doorstep [17]. Although Queensland had some limits on the volume of alcohol that could be purchased, the relaxation of regulations around alcohol may contribute to the heath burden and social harms (such as domestic violence) of problematic drinking at home. It also opposes World Health Organisation advice [29]. Efforts should be made through policy to retain restrictions and control over alcohol purchasing and delivery through the pandemic, with particular attention to age verifications and the intoxication of buyers, and stricter quantity restrictions and pricing [13].

Telehealth and outreach

Support services for substance use disorders have needed to shift the type of treatment offered to enable social distancing. Telehealth and outreach options are valuable avenues for reaching clients for psychological and pharmacological support, and may assist in curbing the issue of exposing vulnerable people – such as those with comorbid health problems, and those who have been advised to quarantine – to the virus [23]. As a result, the use of telehealth and virtual meetings to deliver one-to-one and group substance use treatment has increased [31]: since the pandemic restrictions, 13% of Australians seeking treatment for substance use problems reported using telehealth appointments, with no significant reduction in satisfaction with treatment [4]. However, this approach may be challenging for collecting biological samples to provide data on substance use (e.g. urine toxicology tests) [32]. Telehealth options may be difficult for those who are homeless or without access to mobile phones, meaning a combination of telehealth and outreach services may be more fitting [33].

Substitution medications

On-site opioid substitution services have also needed to adapt to provide pharmacological medications such as methadone and buprenorphine while reducing social contact. Delivery services have been used as an avenue to minimise social contact, in addition to increasing take-home stocks of methadone or buprenorphine [22, 34], or using depot (long-acting) buprenorphine (an approach that is already used in Queensland [35]). These adaptations will enable people who use AOD to receive their medications while minimising contact during the pandemic and have been adopted by the Queensland Government [36]. However, reduced supervision and regulation of the use of these medications may also heighten the risks of overdose, particularly for those who are prescribed high doses.

Distribution of take-home naloxone is being gradually implemented in Queensland. It should be expanded in line with pilot programs in other states to help mitigate the risks of opioid overdoses. When administering intranasal naloxone to another person, it is advised that a surgical mask is placed on the individual in case of a sneezing response to the aerosol when returning to consciousness, to reduce the risk of viral transmission [37]. To reduce this risk further, alternative routes of administration may also be advised – such as intramuscular or intravenous routes [37].

Summary points

- Alcohol and cannabis use have increased during the pandemic, while MDMA, cocaine, and ketamine use has decreased.
- Injecting use of heroin has not changed for the majority, while injecting methamphetamine use has generally remained the same or reduced.
- Decreased availability during the pandemic was the most common reason for reduced illicit drug use.
- Underlying mechanisms of AOD use include poorer mental health, social factors, and spending more time with others who use drugs.
- People living with substance dependence are at greater risk if they contract COVID-19 due to the presence of comorbid health problems.
- Harm-reduction strategies should inform regular AOD users who have reduced use of the dangers of using substances after prolonged periods of abstinence.
- Telehealth and outreach treatment programs have provided a practical solution to the provision of psychological support during the pandemic.
- Use of take-home doses of medications (e.g. methadone and naloxone) and delivery services will reduce social contact and risk of overdose for those maintained on opioid substitution medications.
- Public health messages and harm reduction strategies should have a specific focus on how to use safely during the pandemic, including promoting existing infection prevention messages and hygiene practices around drug use.

Terminology

- ADAPT: Australians' Drug use: Adapting to Pandemic Threats Study.
- AOD: Alcohol and other drugs
- EDRS: The Ecstasy and Related Drugs Reporting System.
- GHB: Gamma hydroxybutyrate
- IDRS: The Illicit Drug Reporting System.
- LSD: Lysergic acid diethylamide, commonly known as acid, a hallucinogenic drug.
- MDMA: 3,4-methylenedioxy-methamphetamine, commonly known as ecstasy or molly, a psychoactive
- drug commonly used for recreational purposes.
- USIC: Understanding Social Impacts of COVID-19

References

1. Queensland Health. Chief Health Officer public health directions. 2020 [cited 2020 11th May]; available from: https://www.health.qld.gov.au/system-governance/legislation/cho-public-health-directions-underexpanded-public-health-act-powers.
2. Sutherland, R. et al, Key findings from the 'Australians' Drug Use: Adapting to Pandemic Threats (ADAPT)'Study, in ADAPT Bulletin no. 1. 2020, National Drug and Alcohol Research Centre: Sydney.
3. Peacock, A. et al, Impacts of COVID-19 and associated restrictions on people who use illicit stimulants in Australia: Preliminary findings from the Ecstasy and Related Drugs Reporting System (EDRS), in National Drug and Alcohol Research Centre. 2020, Drug Trends: Sydney.
4. Peacock, A. et al, The Illicit Drug Reporting System (IDRS). 2020, National Drug and Alcohol Research Centre: Sydney.
5. Australian Institute of Health and Welfare, National Drug Strategy Household Survey 2019, in Drug Statistics series no. 32. PHE 270. 2020, AIHW: Canberra.
6. Salom, C., et al., Understanding Social Impacts of COVID-19 Study (USIC), Institute for Social Science Research, UQ. 2020.
7. Rehm, J, et al., Alcohol use in times of the COVID 19: Implications for monitoring and policy. 2020.
8. Bonsaksen, T., et al., Cross-national study of worrying, loneliness, and mental health during the COVID-19 pandemic: a comparison between individuals with and without infection in the family. Research Square, 2020.
9. Rodriguez, L.M., D.M. Litt, S.H. Stewart, Drinking to Cope with the Pandemic: The Unique Associations of COVID-19-Related Perceived Threat and Psychological Distress to Drinking Behaviors in American Men and Women. Addictive Behaviors, 2020: p. 106532.
10. Connor, J.P., P.S. Haber,W.D. Hall, Alcohol use disorders. Lancet, 2016. 387(10022): p. 988-998.
11. de Wit, H. M. Sayette, Considering the context: social factors in responses to drugs in humans. Psychopharmacology, 2018. 235(4): p. 935-945.
12. Foundation for Alcohol Research and Education Cancer Council WA, An alcohol ad every 35 seconds. A snapshot of how the alcohol industry is using a global pandemic as a marketing opportunity. 2020, FARE: Deakin, ACT.
13. Reynolds, J., C.J.D. Wilkinson, A. Review, Accessibility of 'essential' alcohol in the time of COVID-19: Casting light on the blind spots of licensing? 2020. 39(4): p. 305-308.
14. British Broadcasting Corporation. Coronavirus: Shoppers stock up on alcohol amid lockdown. 2020 accessed on the 8th July 2020]; Available from: https://www.bbc.com/news/business-52226488 .
15. Newsweek. U.S. Alcohol Sales Increase 55 Percent in One Week Amid Coronavirus Pandemic. 2020 accessed on 8th July 2020]; Available from: https://www.newsweek.com/us-alcohol-sales-increase-55-percent-one-week-amid-coronavirus-pandemic-1495510.
16. Lee, J.J., M.P. Wang,S.C. Yang, Will the tobacco industry ultimately triumph in the midst of COVID-19 pandemic?: a call for nurses' action in tobacco control. International Journal of Nursing Studies, 2020: p. 103726.
17. Colbert, S., et al., COVID-19 and alcohol in Australia: Industry changes and public health impacts. Drug and Alcohol Review, 2020. 39(5): p. 435-440.

18. Nam, H.S., et al., High fatality rates and associated factors in two hospital outbreaks of MERS in Daejeon, the Republic of Korea. Int J Infect Dis, 2017. 58: p. 37-42.
19. Alraddadi, B.M., et al., Risk Factors for Primary Middle East Respiratory Syndrome Coronavirus Illness in Humans, Saudi Arabia, 2014. Emerg Infect Dis, 2016. 22(1): p. 49-55.
20. Vardavas, C.I. K. Nikitara, COVID-19 and smoking: A systematic review of the evidence. Tob Induc Dis, 2020. 18: p. 20.
21. Plummer, M.P., et al., Smoking in critically ill patients with COVID-19: the Australian experience. 2020.
22. Dunlop, A., et al., Challenges in maintaining treatment services for people who use drugs during the COVID-19 pandemic. Harm Reduct J, 2020. 17(1): p. 26.
23. Da, B.L., G.Y. Im,T.D.J.H. Schiano, COVID-19 hangover: a rising tide of alcohol use disorder and alcohol associated liver disease. 2020.
24. Boyer, J., COVID-19, Medication-Assisted Treatment, and Increased Risk for Further Respiratory Depression. Am J Psychiatry, 2020. 177(7): p. 636.
25. Melamed, O.C., et al., COVID-19 and persons with substance use disorders: Inequities and mitigation strategies. Substance Abuse, 2020. 41(3): p. 286-291.
26. Queensland Government. Quit HQ: Novel coronavirus (COVID-19) and smoking. 2020 22nd July 2020.]; Available from: https://quithq.initiatives.qld.gov.au/covid-19-and-smoking/.
27. World Health Organisation. Smoking and COVID-19: Scientific Brief. 2020 22nd July 2020.]; Available from: https://www.who.int/news-room/commentaries/detail/smoking-and-covid-19.
28. The World Health Organisation. Alcohol and COVID-19: what you need to know. 2020 1st July 2020.]; Available from: https://www.euro.who.int/__data/assets/pdf_file/0010/437608/Alcohol-and-COVID-19-what-you-need-to-know.pdf?ua=1.
29. World Health Organisation. Alcohol does not protect against COVID-19; access should be restricted during lockdown. 2020; Available from: https://www.euro.who.int/en/health-topics/disease-prevention/alcoholuse/news/news/2020/04/alcohol-does-not-protect-against-covid-19-access-should-be-restricted-duringlockdown.
30. European Monitoring Centre for Drugs and Drug Addiction and Europol, EU Drug Markets: Impact of COVID-19. 2020: Publications office of the European Union, Luxembourg.
31. Green, T.C., J. Bratberg,D.S. Finnell, Opioid use disorder and the COVID 19 pandemic: A call to sustain regulatory easements and further expand access to treatment. Substance Abuse, 2020. 41(2): p. 147-149.
32. Lin, L., A.C. Fernandez,E.E. Bonar, Telehealth for Substance-Using Populations in the Age of Coronavirus Disease 2019: Recommendations to Enhance Adoption. JAMA Psychiatry, 2020.
33. Harris, M., et al., Low Barrier Tele-Buprenorphine in the Time of COVID-19: A Case Report. J Addict Med, 2020.
34. Dietze, P.M., A.J.D. Peacock,A. Review, Illicit drug use and harms in Australia in the context of COVID-19 and associated restrictions: Anticipated consequences and initial responses. 2020. 39(4): p. 297.
35. Queensland Health. Fact sheet: Long-acting injections ofbuprenorphinefor opioid dependence treatment - Update - March 2020. 2020 29th July 2020]; Available from: https://www.health.qld.gov.au/__data/assets/pdf_file/0029/952742/buprenorphine-lai-fact-sheet.pdf .

36. Queensland Health. Fact sheet: Queensland Opioid Treatment Program –COVID-19 advice for treatment providers. 2020 29th July 2020]; Available from: ttps://www.health.qld.gov.au/__data/assets/pdf_file/0033/952737/QOTP_Fact-Sheet-COVID-19.pdf.
37. Leong, Y.C. P.R. Verbeek, Does intranasal naloxone administration increase the risk of 2019 coronavirus disease transmission? CJEM, 2020: p. 1-2.

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