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# Alcohol, Other Drugs, and Health: Current Evidence

NOVEMBER - DECEMBER 2020

## INTERVENTIONS & ASSESSMENTS

### One in Eight Americans With Alcohol Use Disorder Receive Recommended Treatment

US clinical guidelines recommend pharmacotherapy as a first-line treatment for alcohol use disorder (AUD), yet few people who could benefit from AUD medications receive them. Researchers used 2008–2018 claims data from a large US insurer to investigate how many individuals filled prescriptions, how long it took to fill prescriptions, and clinical factors associated with filling prescriptions for AUD medications (naltrexone, acamprosate, disulfiram, and topiramate).

- Of 151,128 individuals with a medical encounter for AUD, 13% subsequently filled a prescription for AUD medications.
- A median of 33 days passed between the AUD medical encounter and a prescription fill.
- Men made up two-thirds of the sample, but women were more likely to fill prescriptions for AUD medications.
- Individuals with a medical encounter for an acute alcohol-related condition (e.g., acute pancreatitis) were less likely to fill prescriptions for AUD medications, compared with those without such a medical encounter (hazard ratio [HR], 0.79).
- Individuals with moderate or severe AUD (versus mild) or with (versus without) chronic alcohol-related conditions were more likely to fill prescriptions for AUD medications (HR, 2.05 and 1.08, respectively).

*Comments:* Only one in eight commercially insured individuals with a medical encounter for AUD subsequently received medications for AUD. Clinicians could initiate medications for AUD during many medical encounters, including those for acute alcohol-related problems, but these opportunities often go unrealized. Increasing clinicians' comfort and competence in prescribing these safe and effective medications would likely result in substantial health benefits.

Aaron D. Fox, MD

*Reference:* Huskamp HA, Reif S, Greenfield SF, et al. Medication utilization for alcohol use disorder in a commercially insured population. *J Gen Intern Med.* 2020;35(11):3262–3270.

### Racial and Ethnic Disparities in Receipt of Medications for Opioid Use Disorder During Pregnancy

Medications for opioid use disorder (MOUD) are the standard of care for treatment of opioid use disorder, including during pregnancy. Previous research has described racial and ethnic disparities in receipt of MOUD. In this retrospective cohort study of pregnant women with OUD (N=5247), researchers examined the association between maternal race and ethnicity and the following outcomes: receipt of MOUD during pregnancy, consistency of receipt, and medication type (methadone or buprenorphine).

(continued page 2)

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## Racial and Ethnic Disparities in Receipt of Medications for Opioid Use Disorder During Pregnancy (continued from page 1)

- Overall, 87% of the cohort were white non-Hispanic, 5% were black non-Hispanic, and 9% were Hispanic. About one-third (34%) of the cohort did not receive any MOUD.
- Compared with white non-Hispanic women, black non-Hispanic and Hispanic women were significantly less likely to receive MOUD during pregnancy (adjusted odds ratios [aORs], 0.37 and 0.42, respectively) and less likely to have consistently received it (i.e., for at least 6 continuous months).
- Compared with white non-Hispanic women, black non-Hispanic and Hispanic women had a lower likelihood of receiving buprenorphine compared with methadone (aORs, 0.60 and 0.77, respectively).

*Comments:* This retrospective cohort study demonstrates a treatment gap during pregnancy with racial and ethnic disparities similar to those described in the general population of patients with OUD. Inequitable treatment may stem from differential perinatal and substance use treatment access, retention, and quality. Further research should examine and address the individual, institution, and system-level factors that drive these disparities.

Jordana Laks, MD, MPH† and Melissa Weimer, DO

† Editorial Intern and Addiction Medicine Fellow, Boston Medical Center

*Reference:* Schiff DM, Nielsen T, Hoepfner BB, et al. Assessment of racial and ethnic disparities in the use of medication to treat opioid use disorder among pregnant women in Massachusetts. *JAMA Netw Open.* 2020;3(5):e205734.

## Fentanyl and Norfentanyl Detected in Urine for 7 or More Days After Regular Use

Illicit opioids in the US are increasingly found to contain fentanyl (or analogues), contributing to recent increases in overdoses due to its higher potency. After one or a few doses, fentanyl is cleared from the body after 2–4 days. However, it is highly lipophilic and with regular use may become sequestered in adipocytes (fat cells) or other tissues, leading to prolonged clearance. In this study, researchers serially tested the urine of 12 participants with opioid use disorder in a 28-day residential program who tested positive for fentanyl at baseline.

- The mean time for clearance of fentanyl was 7 days and norfentanyl (a metabolite) 13 days after last use.
- One participant continued to test positive for fentanyl for 19 days and norfentanyl 26 days after last use.

*Comments:* These observations may have implications for treatment of individuals with opioid use disorder and may explain reports of difficulties with initiation of buprenorphine due to precipitated withdrawal in individuals using fentanyl. We need more research on optimizing buprenorphine initiation for individuals with fentanyl use and investigations of alternative approaches such as using tramadol (or other opioids) as a bridge (limited by regulations in the US), or the use of low doses (which some call “microdosing”) of buprenorphine, which may involve use of buprenorphine formulations not approved for opioid use disorder.

Darius A. Rastegar, MD

*Reference:* Huhn AS, Hobelmann JG, Oyler GA, Strain EC. Protracted renal clearance of fentanyl in persons with opioid use disorder. *Drug Alcohol Depend.* 2020;214:108147.

## HEALTH OUTCOMES

### Significant Harm is Associated With Drinking Within Recommended Weekly Guidelines

Many countries have established lower-risk drinking guidelines; Canada's guidelines have relatively high cut-offs compared with other high-income countries.\* This study estimated the proportion of alcohol-related deaths and harms in 2014 among people in British Columbia who drink within and above guideline limits. The population (people aged  $\geq 15$ ; N=4 million) was divided into 4 categories of consumption: lifetime abstinence, formerly drinking (i.e., not in the past year), drinking within weekly guidelines, and drinking above weekly guidelines.

- 77% of the cohort had current alcohol use; 65% of these individuals drank within weekly guidelines. A higher proportion of men (18%) than women (7%) were drinking above weekly guidelines.
- 40% of deaths from alcohol-attributable injuries were among those drinking within guidelines, as were 19% of deaths from alcohol-attributable cancers and 31% of deaths from alcohol-attributable communicable diseases.
- More than 50% of deaths from alcohol-attributable cancers occurred among those formerly drinking and those drinking within guidelines. However, deaths from neuropsychiatric conditions (mostly

alcohol use disorders) were found almost exclusively among those drinking above guidelines (99%).

- In total, alcohol was responsible for 2000 deaths and, of these, 38% were among those formerly drinking or those drinking within weekly guidelines.

\* Canada's low-risk drinking guideline cut-offs are 201.75 g ethanol/week for men (~15 standard drinks), 134.5 g for women (~10 standard drinks), compared with 100 g/week for men and women in France; 112 g/week for men and women in the UK; 168 g/week for men, 84 g for women in Germany; and 196 g/week for men, 98 g for women in the US.

*Comments:* Alcohol consumption within Canadian recommended guidelines is associated with significant harm. While Canadian guideline cut-offs are higher than those in parts of western Europe and the US, the drinking level with aligned risks between those drinking and abstaining is 12 g ethanol per day for men and 17 g for women, which is below most countries' current guidelines. Based on results from this and other studies, conservative, gender-neutral recommendations should be adopted.

Nicolas Bertholet, MD, MSc

*Reference:* Sherk A, Thomas G, Churchill S, Stockwell T. Does drinking within low-risk guidelines prevent harm? Implications for high-income countries using the international model of alcohol harms and policies. *J Stud Alcohol Drugs.* 2020;81(3):352–361.

### Adolescents With Substance Use Have Increased Their Use During the COVID-19 Pandemic

This study investigated the impact of COVID-19 on substance use rates and patterns among 1054 Canadian adolescents aged 14–18. Participants completed online surveys regarding their substance use in the 3 weeks prior to and 3 weeks following the implementation of COVID-19 social distancing measures.

- Fewer adolescents reported heavy episodic drinking, cannabis use, or vaping in the 3 weeks following the implementation of social distancing measures, compared with the 3 weeks prior.
- Among adolescents with substance use, the mean number of days of substance use increased significantly for alcohol (0.76 to 0.96 days) and cannabis (0.94 to 1.1 days) in the 3 weeks following the implementation of social distancing measures, compared with the 3 weeks prior.
- Substance use was most often solitary (49%), followed by: with parents (42%), with peers using technology (32%), and face-to-face with peers (24%).

*Comments:* Spending time at home removed from social contacts is particularly hard for teens for whom peer interactions are important for growth. This study has found that, overall, fewer youth are using substances following the implementation of COVID-19 social distancing measures, but those who use alcohol or cannabis increased their use. It could be that those who rely on substances as a primary coping strategy increase their use because they are triggered by the stress of the pandemic. In addition to the risks inherent to unhealthy substance use, these adolescents are also at peak risk for spreading infectious disease: they exhale forcefully when smoking or vaping, share materials, and cannot wear masks while they are using substances. Treating substance use disorders and helping youth decrease their use are key containment strategies for managing COVID-19.

Sharon Levy, MD

*Reference:* Dumas TM, Ellis W, Litt DM. What does adolescent substance use look like during the COVID-19 pandemic? Examining changes in frequency, social contexts, and pandemic-related predictors. *J Adolesc Health.* 2020;67(3):354–361.

## Patients With Opioid Use Disorder Frequently Face Discrimination From Post-acute Medical Care Facilities

Patients who are hospitalized with medical conditions related to opioid use disorder (OUD) may benefit from treatment after hospitalization in a post-acute medical care facility. These facilities have been cited for violating the Americans with Disabilities Act (ADA) for discriminating against patients with OUD, a recognized disability, defined as a physical or mental impairment that substantially limits a major life activity. This cohort study of patients hospitalized with conditions related to their OUD determined the proportion of referrals to post-acute medical care facilities that discriminated against patients based on their OUD or engagement with opioid agonist treatment (OAT). The authors also assessed if prior ADA settlements against these facilities affected these practices.

- 15% of all referrals were deemed to discriminate, citing OUD or engagement with OAT as the reason for admission denial.
- 4 out of 10 patients with OUD were not accepted at a post-acute medical care facility due to their OUD or engagement with OAT.

- Among the facilities receiving referrals, 29% were deemed to express discrimination in their reason for admission rejection.
- There was no difference in proportion of discriminatory rejections before and after ADA settlement.

*Comments:* Despite federal and state protections for individuals with disabilities such as substance use disorder, discrimination against people with OUD is widespread in post-acute medical care facilities. Continued advocacy is needed to improve these patients' access to care, particularly as hospitalizations among this population rise.

Melissa Weimer, DO, MCR

*Reference:* Kimmel SD, Rosenmoss S, Bearnot B, et al. Rejection of patients with opioid use disorder referred for post-acute medical care before and after an anti-discrimination settlement in Massachusetts. *J Addict Med.* 2020 [Epub ahead of print]. doi: 10.1097/ADM.0000000000000693.

## HIV & HCV

### Alcohol Use Disorder and Progression of Liver Disease Among People With HCV

This systematic review and meta-analysis aimed to summarize the evidence on the association between alcohol use disorder (AUD) and decompensated liver cirrhosis among people with chronic hepatitis C (HCV) infection. Using data from 268,114 people with chronic HCV in France, researchers identified the prevalence of AUD and its association with decompensated liver cirrhosis.

- Prevalence of AUD in the cohort was 24%.
- Prevalence of decompensated liver cirrhosis was 8%.
- AUD was associated with an increased risk of progression to decompensated liver cirrhosis\* (relative risk, 3.3).
- 35% of decompensated liver disease cases were attributable to AUD.

*Comments:* Among this cohort of people with HCV infection in France, the prevalence of AUD was elevated, accounting for more than a third of cases of decompensated liver cirrhosis. Alcohol use should be assessed among patients with liver disease and reduction in alcohol use and/or treatment for AUD should be supported. This study also points to the need for data from regions of the world with high HCV infection prevalence (e.g., Africa, Central Asia, and Eastern Europe).

Nicolas Bertholet, MD, MSc

*Reference:* Llamosas-Falcón L, Shield KD, Gelovany M, et al. Alcohol use disorders and the risk of progression of liver disease in people with hepatitis C virus infection - a systematic review. *Subst Abuse Treat Prev Policy.* 2020;15(1):45.

\* Defined as: acute deterioration in liver function in patients with liver cirrhosis, characterized by jaundice, ascites, hepatic encephalopathy, hepatorenal syndrome, and/or variceal hemorrhage.

## Higher Intensity of Behavioral Treatment for Alcohol Use Disorder is Associated With Improved HIV-related Outcomes

Little is known about the effects of behavioral treatment and medication for alcohol use disorder (BAUD and MAUD, respectively) on health outcomes among people living with HIV. Researchers used data from the US Veterans Aging Cohort Study to describe BAUD intensity and MAUD utilization—and their association with HIV-related outcomes—among 7830 participants with a new AUD-related treatment encounter and  $\geq 12$  months of prior follow-up for comparison.

- The intensity of BAUD was categorized by treatment days/month over the 12 months following initiation: 35% of the cohort received a single visit; 44% received minimal BAUD (mean of 2 visits); 17% received sustained moderate BAUD (starting with a mean of 8 visits, gradually declining to 1–2 visits/month); and 4% received intensive BAUD (starting with a mean of 14–16 visits/month, gradually declining to 7 visits/month).
- 20% of the cohort received MAUD. Gabapentin was the most commonly prescribed (86%), followed by naltrexone (9%), topiramate (7%), acamprosate (2%), and disulfiram (1%).
- Among individuals with baseline detectable HIV viral load (VL), higher-intensity BAUD was associated with improved VL, CD4 cell count, medication

adherence, and HIV disease severity, compared with those receiving lower-intensity BAUD.

- For individuals with undetectable VL at baseline, only antiretroviral medication adherence was significantly improved among those receiving higher-intensity BAUD compared with those receiving lower-intensity BAUD.
- MAUD receipt was associated with improved antiretroviral medication adherence for individuals with detectable and undetectable VL, and improved CD4 counts among those with a detectable VL, compared with individuals who did not receive MAUD. Other outcomes were not significantly improved.

*Comments:* This study found that few patients with AUD and HIV receive BAUD beyond minimal intensity. It may be that higher-intensity BAUD could improve HIV outcomes, particularly for individuals with detectable viral loads. The role of MAUD is less clear, especially since only a small number of participants in this study received FDA-approved medications for AUD.

Darius A. Rastegar, MD

*Reference:* McGinnis KA, Skanderson M, Edelman EJ, et al. Impact of behavioral and medication treatment for alcohol use disorder on changes in HIV-related outcomes among patients with HIV: a longitudinal analysis. *Drug Alcohol Depend.* 2020;217:108272.



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**Addiction Science & Clinical Practice (ASCP)**, founded in 2002 by the National Institute on Drug Abuse (NIDA) and now published by leading open-access publisher BioMed Central, is seeking submissions for an upcoming **special series on the opioid use disorder (OUD) care continuum**, specifically articles describing broad research and data supported by the National Drug Abuse Treatment Clinical Trials Network (CTN): its past effort in developing MOUD treatment and current effort in improving MOUD treatment quality.

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**When:** May 9-12, 2021

**Where:** Virtual

**Cost:** Tuition is free for all attendees.

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