

Reducing opioid overdose deaths during COVID-19



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Take steps to lessen the impact of the pandemic on patients with substance use disorders

Individuals with mental health and substance use disorders (SUDs) are particularly susceptible to negative effects of the coronavirus disease 2019 (COVID-19) pandemic. The collision of the COVID-19 pandemic and the drug overdose epidemic has highlighted the urgent need for physicians, policymakers, and health care professionals to optimize care for individuals with SUDs because they may be particularly vulnerable to the effects of the virus due to compromised respiratory and immune function, and poor social support.¹ In this commentary, we highlight the challenges of the drug overdose epidemic, and recommend strategies to mitigate the impact of the COVID-19 pandemic among patients with SUDs.

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A crisis exacerbated by COVID-19

The current drug overdose epidemic has become an American public health nightmare. From 1999 to 2017, >700,000 people died as a result of a drug overdose, and this trend has continued to accelerate.² In 2017, the number of overdose deaths in the United States involving opioids was 6 times higher than in 1999.² Although there were 4.1% fewer drug overdose

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deaths in 2018 than in the previous year, the age-adjusted rate of drug overdose involving synthetic opioids other than methadone increased by 10% from 2017 to 2018.³

What is causing this significant loss of life? Prescription opioids and illegal opioids such as heroin and illicitly manufactured fentanyl are the main agents associated with overdose deaths. These opioids were responsible for 61% (28,647) of drug overdose deaths in the United States in 2014.⁴ In 2015, the opioid overdose death rate increased by 15.6%.⁵

The increase in the number of opioid overdose deaths in part coincides with a sharp increase in the availability and use of heroin. Heroin overdose deaths have more than tripled since 2010, but heroin is not the only opiate involved. Fentanyl, a synthetic, short-acting opioid that is approved for managing pain in patients with advanced cancers, is 50 times more potent than heroin. The abuse of prescribed fentanyl has been accelerating over the past decade, as is the use of illicitly produced fentanyl. Evidence from US Drug Enforcement Administration (DEA) seizure records shows heroin is being adulterated with illicit fentanyl to enhance the potency of the heroin.^{6,7} Mixing illicit fentanyl with heroin may be contributing to the recent increase in heroin overdose fatalities. Postmortem studies of individuals who died from a heroin overdose have frequently found the presence of fentanyl along with heroin.⁸ Overdose deaths involving heroin may be occurring because individuals may be unknowingly using heroin adulterated with fentanyl.⁹ In addition, carfentanil, a powerful new synthetic fentanyl, has been recently identified in heroin mixtures. Carfentanil is 10,000 times stronger than morphine. Even in miniscule amounts, carfentanil can suppress breathing to the degree that multiple doses of naloxone are needed to restore respirations.

Initial studies indicate that the COVID-19 pandemic has been exacerbating this situation. Wainwright et al¹⁰ conducted an analysis of urine drug test results of patients with SUDs from 4 months before and 4 months after COVID-19 was declared a national emergency on March 13, 2020. Compared with before COVID-19, the proportion of specimens testing

positive since COVID-19 increased from 3.80% to 7.32% for fentanyl and from 1.29% to 2.09% for heroin.¹⁰

A similar drug testing study found that during the pandemic, the proportion of positive results (positivity) increased by 35% for non-prescribed fentanyl and 44% for heroin.¹¹ Positivity for non-prescribed fentanyl increased significantly among patients who tested positive for other drugs, including by 89% for amphetamines; 48% for benzodiazepines; 34% for cocaine; and 39% for opiates ($P < .01$ for all).¹¹

In a review of electronic medical records, Ochalek et al¹² found that the number of nonfatal opioid overdoses in an emergency department in Virginia increased from 102 in March-June 2019 to 227 in March-June 2020. In an issue brief published on October 31, 2020, the American Medical Association reported increase in opioid and other drug-related overdoses in more than 40 states during the COVID-19 pandemic.¹³

Strategies for intervention

A multi-dimensional approach is needed to protect the public from this growing opioid overdose epidemic. To address this challenging task, we recommend several strategies:

Enhance access to virtual treatment

Even when in-person treatment cannot take place due to COVID-19–related restrictions, it is vital that services are accessible to patients with SUDs during this pandemic. Examples of virtual treatment include:

- Telehealth for medication-assisted treatment (MAT) using buprenorphine (recently updated guidance from the US DEA and Substance Abuse and Mental Health Services Administration [SAMHSA] allows this method of prescribing)
- Teletherapy to prevent relapse
- Remote drug screens by sending saliva or urine kits to patients' homes, visiting patients to collect fluid samples, or asking patients to come to a "drive-through" facility to provide samples
- Virtual (online) Alcoholics Anonymous, Narcotics Anonymous, SMART Recovery, and similar meetings to provide support in the absence of in-person meetings.

Clinical Point

Increasing access to medication-assisted treatment, including buprenorphine, is crucial during the COVID-19 pandemic



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Telehealth can be used for evaluation, monitoring, prescribing medications, and psychosocial counseling

Table

ASAM guidance for office-based opioid treatment during COVID-19

Topic	Recommendation
Leveraging telehealth	Telemedicine or telephonic visits should be used whenever possible and appropriate to provide buprenorphine treatment to patients
Prescriptions and refills	Provide buprenorphine refills to stable patients, without requiring in-person visits or urine toxicology testing
Psychosocial treatment	Psychosocial counseling should not be required as part of buprenorphine treatment
Ensuring adequate supply of buprenorphine	Providers and programs should take steps to ensure that all patients currently taking buprenorphine for addiction treatment continue to have timely access to this medication
Harm reduction	Ensure patients have access to naloxone
Considerations for high-risk patients	High-risk patients should continue to have access to appropriate addiction treatment, which may need to include some capacity for face-to-face treatment

ASAM: American Society of Addiction Medicine; COVID-19: coronavirus disease 2019

Source: Adapted from reference 14

The American Society of Addiction Medicine (ASAM) offers guidance to treatment programs to focus on infection control and mitigation. The *Table*¹⁴ summarizes the ASAM recommendations for office-based opioid treatment during COVID-19.

Expand access to treatment

This includes access to MAT (such as buprenorphine/naloxone, methadone, naltrexone, and depot naltrexone) and, equally important, to psychosocial treatment, counseling, and/or recovery services. Recent legislative changes have increased the number of patients that a qualified physician can treat with buprenorphine/naloxone from 100 to 275, and allowed physician extenders to prescribe buprenorphine/naloxone in office-based settings. A recent population-based, retrospective Canadian study showed that opioid agonist treatment decreased the risk of mortality among opioid users, and the protective effects of this treatment increased as fentanyl and other synthetic opioids became common in the illicit drug supply.¹⁵ However, because of the shortage of psychiatrists and addiction medicine specialists in several regions of the United States, access to treatment is extremely limited and often inadequate. This constitutes a major public health crisis and contributes to our inability to

intervene effectively in the opioid epidemic. Telepsychiatry programs can bring needed services to underserved areas, but they need additional support and development. Further, involving other specialties is paramount for treating this epidemic. Integrating MAT in primary care settings can improve access to treatment. Harm-reduction approaches, such as syringe exchange programs, can play an important role in reducing the adverse consequences associated with heroin use and establish health care relationships with at-risk individuals. Syringe exchange programs can also reduce the rate of infections associated with IV drug use, such as human immunodeficiency virus and hepatitis C virus.

Increase education on naloxone

Naloxone is a safe and effective opioid antagonist used to treat opioid overdoses. Timely access to naloxone is of the essence when treating opioid-related overdoses. Many states have enacted laws allowing health care professionals, law enforcement officers, and patients and relatives to obtain naloxone without a physician's prescription. It appears this approach may be yielding results. For example, the North Carolina Harm Reduction Coalition distributed >101,000 free overdose rescue kits that included naloxone and recorded

13,392 confirmed cases of overdose rescue with naloxone from 2013 to 2019.¹⁶

Divert patients with SUDs from the criminal justice system to treatment

We need to develop programs to divert patients with SUDs from the criminal justice system, which is focused on punishment, to interventions that focus on treatment. Data indicates high recidivism rates for incarcerated individuals with SUDs who do not have access to treatment after they are released. Recognizing this, communities are developing programs that divert low-level offenders from the criminal justice system into treatment. For instance, in Seattle, the Law Enforcement Assisted Diversion is a pilot program developed to divert low-level drug and prostitution offenders into community-based treatment and support services. This helps provide housing, health care, job training, treatment, and mental health support. Innovative programs are needed to provide SUD treatment in the rehabilitation programs of correctional facilities and ensure case managers and discharge planners can transition participants to community treatment programs upon their release.

Develop early identification and prevention programs

These programs should focus on individuals at high risk, such as patients with comorbid SUDs and psychiatric disorders, those with chronic pain, and at-risk children whose parents abuse opiates. Traditional addiction treatment programs typically do not address patients with complex conditions or special populations, such as adolescents or pregnant women with substance use issues. Evidence-based approaches such as Screening, Brief Intervention, and Referral to Treatment (SBIRT), Integrated Dual Diagnosis Treatment (IDDT), and prevention approaches that target students in middle schools and high schools need to be more widely available.

Improve education on opioid prescribing

Responsible opioid prescribing for clinicians should include education about the regular use of prescription drug

monitoring programs, urine drug screening, avoiding co-prescription of opioids with sedative-hypnotic medications, and better linkage with addiction treatment.

Treat comorbid psychiatric conditions

It is critical to both identify and effectively treat underlying affective, anxiety, and psychotic disorders in patients with SUDs. Anxiety, depression, and emotional dysregulation often contribute to worsening substance abuse, abuse of prescription drugs, diversion of prescribed drugs, and an increased risk of overdoses and suicides. Effective treatment of comorbid psychiatric conditions also may reduce relapses.

Increase research on causes and treatments

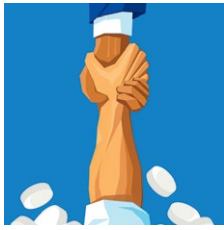
Through research, we must expand our knowledge to better understand the factors that contribute to this epidemic and develop better treatments. These efforts may allow for the development of prevention mechanisms. For example, a recent study found that the continued use of opioid medications after an overdose was associated with a high risk of a repeated overdose.¹⁷ At the end of a 2-year observation, 17% (confidence interval [CI]: 14% to 20%) of patients receiving a high daily dosage of a prescribed opioid had a repeat overdose compared with 15% (CI: 10% to 21%) of those receiving a moderate dosage, 9% (CI: 6% to 14%) of those receiving a low dosage, and 8% (CI: 6% to 11%) of those receiving no opioids.¹⁷ Of the patients who overdosed on prescribed opiates, 30% switched to a new prescriber after their overdose, many of whom may not have been aware of the previous overdose. From a public health perspective, it would make sense for prescribers to know of prior opioid and/or benzodiazepine overdoses. This could be reported by emergency department clinicians, law enforcement, and hospitals into a prescription drug monitoring program, which is readily available to prescribers in most states.

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Clinical Point

Harm-reduction strategies such as syringe exchange programs can reduce the adverse consequences of injecting heroin



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Clinical Point

Responsible opioid prescribing should include regular use of prescription drug monitoring systems

Related Resources

- Patkar AA, Weisler RH. Opioid abuse and overdose: keep your patients safe. *Current Psychiatry*. 2017;16(8):8-12,14-16.
- American Society of Addiction Medicine. www.asam.org

Drug Brand Names

Buprenorphine • Subutex	Naltrexone • Vivitrol,
Buprenorphine/naloxone • Suboxone, Zubsolv	ReVia
Methadone • Methadose, Dolophine	Naltrexone depot • Depotrex

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Bottom Line

The collision of the coronavirus disease 2019 pandemic and the drug overdose epidemic has highlighted the urgent need for health care professionals to optimize care for individuals with substance use disorders. Suggested interventions include enhancing access to medication-assisted treatment and virtual treatment, improving education about naloxone and safe opioid prescribing practices, and diverting at-risk patients from the criminal justice system to interventions that focus on treatment.