Low Barrier Tele-Buprenorphine in the Time of COVID-19: A Case Report

Miriam Harris, MD, MSc, Samantha Johnson, BA, Sarah Mackin, MPH, Richard Saitz, MD, MPH, Alexander Y. Walley, MD, MSc, and Jessica L. Taylor, MD

Background: To reduce the spread of coronavirus disease 2019 (COVID-19), many substance use disorder treatment programs have transitioned to telemedicine. Emergency regulatory changes allow buprenorphine initiation without an in-person visit. We describe the use of videoconferencing for buprenorphine initiation combined with street outreach to engage 2 patients experiencing homelessness with severe opioid use disorder (OUD).

Case Presentation: Patient 1 was a 30-year-old man with severe OUD who had relapsed to injection heroin/fentanyl after incarceration. A community drop-in center outreach harm reduction specialist facilitated a videoconference with an addiction specialist at an OUD bridge clinic. The patient completed a community buprenorphine/naloxone initiation and self-titrated to his prior dose, 8/2 mg twice daily. One week later, he reconnected with the outreach team for a follow-up videoconference visit. Patient 2, a 36-year-old man with severe OUD, connected to the addiction specialist via a syringe service program harm reduction specialist. He had been trying to connect to a community buprenorphine/naloxone provider, but access was limited due to COVID-19, so he was using diverted buprenorphine/naloxone to reduce opioid use. He was restarted on his previous dose of 12/3 mg daily which was continued via phone follow-up 16 days later.

Conclusions: COVID-19-related regulatory changes allow buprenorphine initiation via telemedicine. We describe 2 cases where telemedicine was combined with street outreach to connect patients experiencing homelessness with OUD to treatment. These cases highlight an important opportunity to provide access to life-saving OUD treatment for vulnerable patients in the setting of a pandemic that mandates reduced face-to-face clinical interactions.

Key Words: buprenorphine, COVID-19, homelessness, induction, social-distancing, substance use disorders, telemedicine

(*J Addict Med* 2020;xx: xxx–xxx)

The coronavirus disease 2019 (COVID-19) pandemic has reached all 54 US jurisdictions[1,2] and threatens a catastrophic impact on people with substance use disorders (SUD). People with SUD may be at increased risk of COVID-19 mortality due to high rates of co-morbid respiratory disease, hypertension, and diabetes.[3,4] They are also more likely to be unstably housed[5] and those utilizing shelters and homeless services are at increased risk of infection due to crowding, a large number of transient clients, a lack of appropriate ventilation, and suboptimal access to healthcare.[6] Additionally, people with SUD may now be at higher risk for overdose and HIV infection due to interruptions in addiction treatment and harm reduction services as programs enforce social distancing practices.[7]

Many medical encounters have rapidly transitioned to telemedicine visits in order to comply with public health recommendations.[8] While randomized trials of telemedicine (in non-SUD settings) have been underpowered, they have shown that video consultations are associated with high satisfaction without detecting differences in disease outcomes.[9] In a systematic review, telemedicine for alcohol use disorder treatment was effective in reducing alcohol use and increasing access to health services.[10] Prescribing buprenorphine via telemedicine in nonrandomized studies appears to be safe and likely increases access in rural communities.[11]

On March 6, 2020, the Centers for Medicare and Medicaid Services agreed to pay for telemedicine encounters during the COVID-19 public health emergency.[12] The Office for Civil Rights stipulated that providers who serve patients in good faith through everyday communication technologies,

From the Grayken Center for Addiction, Boston Medical Center, Boston, MA (MH, SJ, RS, AW, JLT); Department of Medicine, Clinical Addiction Research and Education (CARE) Unit, Section of General Internal Medicine, Boston University School of Medicine and Boston Medical Center, Boston MA (MH, RS, AW, JLT); Department of Medicine, Section of Infectious Diseases, Boston Medical Center, Boston, MA (SJ); Access, Harm Reduction, Overdose Prevention, and Education (AHOPE), Boston Public Health Commission, Boston, MA (SM); Department of Community Health Sciences, Boston University School of Public Health, Boston, MA (RS).

Received for publication April 7, 2020; accepted April 24, 2020.

Miriam Harris is supported by the Research in Addiction Medicine Fellowship NIDA (R25DA033211-Samet). Jessica Taylor is supported by a grant from the Massachusetts Department of Public Health Bureau of Substance Addiction Services to develop Opioid Urgent Care Centers (163274-Bernstein). Richard Saitz, Jessica Taylor, and Alexander Walley are supported by NIDA (UM1DA049412-Samet). The funders had no role in study design, data collection, analysis, decision to publish, or preparation of the manuscript.

The authors have no conflicts of interests to disclose.

Send correspondence to Miriam Harris, MD, MSc, Section of General Internal Medicine, Boston Medical Center, 801 Massachusetts Avenue, Second Floor, Boston, MA 02118. E-mail: Miriam.Harris@bmc.org

ISSN: 1932-0620/16/0000-0001

DOI: 10.1097/ADM.0000000000000682

such as FaceTime or Skype, during the COVID-19 pandemic are protected from Health Insurance Portability and Accountability Act (HIPAA) enforcement.[13] Until the COVID-19 pandemic, telemedicine *initiation* of buprenorphine was not permitted due to Drug Enforcement and Administration (DEA) regulations, which predicated the prescribing of buprenorphine on an in-person medical evaluation.[14] However, on January 31st a public health emergency was declared (an exemption in the Controlled Substances Act),[15] and on March 31st the Acting DEA Administrator clarified that telemedicine could be used to initiate buprenorphine while the COVID-19 emergency remains in effect.[15]

The use of telemedicine for buprenorphine initiation is novel in and of itself. However, without creative engagement of community services, traditional telemedicine may exclude the most vulnerable patients who do not have access to phones or private spaces to contact providers. Here, we describe a partnership between street outreach and a low-barrier addiction medicine bridge clinic at a safety-net hospital in Boston, MA that facilitated tele-buprenorphine initiations. The patients described below provided consent to publish these case reports.

CASE PRESENTATION

#1. A 30-year old man living on the street connected with a harm reduction specialist outside a hospital-operated community drop-in center. The center offers HIV/HCV/STI testing, SUD harm reduction services, treatment referrals, and street outreach. The harm reduction specialist brought the patient into a private space at the center and used their work phone to contact a bridge clinic addiction medicine specialist on their personal phone via FaceTime videoconferencing.

The patient reported using 2 g of heroin/fentanyl intravenously and non-prescribed benzodiazepines daily. His last use was one hour before the telemedicine encounter. He also endorsed occasional cocaine and methamphetamine use. He described estrangement from his family, homelessness, and multiple incarcerations due to heroin/fentanyl. He reported a history of severe opioid use disorder (OUD), severe stimulant and benzodiazepine use disorders, and multiple non-fatal overdoses. Previous treatment included methadone, naltrexone, and, most recently, buprenorphine/naloxone, which was interrupted by incarceration and subsequent relapse 2 months prior. He was concerned about forced withdrawal from heroin/fentanyl if lock-down policies were enacted to reduce COVID-19 transmission and therefore wanted to resume buprenorphine/naloxone. He was not ready to address his benzodiazepine or stimulant use.

On video, he was alert and well-appearing. He reported testing negative for HIV one week prior and his most recent available urine drug test (UDT) from 6 months prior was positive for fentanyl, cocaine, and methamphetamine. The risks of bringing the patient into the lab to repeat a UDT (ie, COVID-19 exposure) were weighed against the benefits of test results and UDT was deferred.

He demonstrated the knowledge to complete a community buprenorphine/naloxone initiation – which was the standard initiation protocol in the bridge clinic – without precipitating withdrawal and was instructed to self-titrate to his previous therapeutic dose of buprenorphine/naloxone 8/2 mg twice daily. A 1-week supply, which was chosen due to his lack of phone and barriers to keeping medication safe on the street, was electronically prescribed to a local pharmacy. He was also prescribed naloxone and counselled on safer injection practices, HIV prevention, and COVID-19 prevention strategies.[16]

The time from visit request to buprenorphine-in-hand was approximately 1 hour. Because the patient did not have a phone, he, the prescriber, and harm reduction specialist planned for him to connect through the same community drop-in center or at the local syringe service program by videoconference for his refill. One week later, through a street outreach harm reduction specialist, he reconnected and reported his last heroin/fentanyl use was 6 days prior. He was prescribed a 2-week refill. In his fourth follow-up visit, he expressed readiness to stop benzodiazepines and started outpatient medically managed benzodiazepine withdrawal.

#2. The second patient, a 36-year old man also living on the street and couch surfing, presented to a local syringe service program. A harm reduction specialist contacted the bridge clinic and facilitated a telemedicine visit using FaceTime between the harm reduction specialist's phone and the bridge clinic addiction specialist's personal phone.

The patient reported a history of severe OUD complicated by past overdoses, cocaine use disorder, and mood disorder, which were confirmed by medical record review. That morning, he had been seen in the Emergency Department seeking medical clearance for inpatient medically managed withdrawal treatment, but he left for unclear reasons without linkage to a facility.

He reported prior sustained recovery on buprenorphine/naloxone 12/3 mg daily. His medical record showed no history of methadone or naltrexone treatment. He had been attempting to reconnect with a community buprenorphine prescriber, but due to COVID-19, the clinic was closed. He had therefore been buying diverted buprenorphine/naloxone to manage withdrawal and decrease injection opioid use. He reported his last heroin/fentanyl use was ''a few days ago'' and his last street buprenorphine/naloxone was earlier that morning. Over videoconference, he was alert, oriented, and anxious appearing. UDT from the Emergency Department was positive for cocaine and buprenorphine.

He was experienced in managing the transition from heroin/fentanyl to buprenorphine/naloxone and reported no precipitated withdrawal with that morning's diverted dose. Because the patient had his own phone and had already initiated buprenorphine/naloxone, he was electronically prescribed a 2-week supply of 12/3 mg daily. A follow-up telemedicine visit was scheduled for two weeks. He was also prescribed naloxone, encouraged to seek HIV testing, and counseled on strategies to reduce COVID-19 risk.[16]

Prescription monitoring program search confirmed that he successfully picked up his prescription. He lost cell phone access temporarily but was able to reconnect by phone on day 16. He reported doing well on 12/3 mg daily, which was refilled for an additional 2 weeks.

Improvements in the bridge clinic's telemedicine infrastructure since these initial tele-buprenorphine/naloxone

inductions include webcams and tablets that facilitate access to HIPAA-compliant videoconferencing platforms. DEA guidance has clarified that both telephone and video-conference- based buprenorphine initiations are permissible.[15]

DISCUSSION AND CONCLUSIONS

The shift to telemedicine to reduce COVID-19 transmission has allowed many patients to continue OUD treatment. However, limitations on walk-in and traditional in-person treatment risk increasing barriers for vulnerable patients experiencing homelessness or unstable housing who may have limited access to private spaces and technologies required for telemedicine. Here we describe how partnerships between addiction specialists and harm reduction outreach teams allowed patients experiencing homelessness to access buprenorphine through telemedicine.

There is limited evidence for telemedicine in people with SUD who are also experiencing homelessness. One cross sectional study from Connecticut found that 70% of people experiencing homelessness had a cell phone compared to 86% of those with stable housing, and only 38% had unlimited minutes versus 50% of those with housing.[17] This highlights the potential to exacerbate access disparities with the shift to telemedicine. On the other hand, a qualitative study among people experiencing homelessness found participants believed that engagement, navigation, and access to care could be enhanced through expanded cell phone communication.[18] Tailored care, including outreach services, for homeless and unstably housed populations has been shown to improve perceptions of treatment[19] and increase housing stability, mental health, and SUD treatment access.[20] The combined approach of pairing street outreach with telemedicine promises to extend addiction specialists' reach at a time when interest in treatment may increase due to changes in local drug supply and treatment access.

Tele-buprenorphine initiation is an innovation that developed in response to a public health crisis. This innovation offers an important opportunity to lower barriers to OUD treatment, particularly when delivered in partnership with harm reduction outreach teams who are connected with the highest risk individuals. Tele-buprenorphine initiation warrants further evaluation to inform optimal addiction care during the COVID-19 pandemic and beyond.

REFERENCES

1. Coronavirus disease 2019 (COVID-19) Situation Report – 58. Available at: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200318-sitrep-58-covid-19.pdf?sfvrsn=20876712_2 Accessed March 19, 2020.
2. CDC. Coronavirus Disease 2019 (COVID-19) Situation Summary. Centers for Disease Control and Prevention. Published March 18, 2020. Available at: https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/summary.html Accessed March 19, 2020.
3. Bahorik AL, Satre DD, Kline-Simon AH, Weisner CM, Campbell CI. Alcohol, cannabis, and opioid use disorders, and disease burden in an integrated health care system. *J Addict Med*. 2017;11:3–9.
4. Zhou F, Yu T, Du R, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *Lancet*. 2020;395:1054–1062.
5. Thompson RG Jr, Wall MM, Greenstein E, Grant BF, Hasin DS. Substance-use disorders and poverty as prospective predictors of first-time homelessness in the United States. *Am J Public Health*. 2013;103(S2):S282–S288.
6. Leung CS, Ho MM, Kiss A, Gundlapalli AV, Hwang SW. Homelessness and the response to emerging infectious disease outbreaks: lessons from SARS. *J Urban Health*. 2008;85:402–410.
7. Williams AR, Tofighi B, Rotrosen J, Lee JD, Grossman E. Psychiatric comorbidity, red flag behaviors, and associated outcomes among office-based buprenorphine patients following Hurricane Sandy. *J Urban Health*. 2014;91:366–375.
8. Greenhalgh T, Wherton J, Shaw S, Morrison C. Video consultations for covid-19. *BMJ*. 2020;368:m998.
9. Internet videoconferencing for patient–clinician consultations in long-term conditions: A review of reviews and applications in line with guidelines and recommendations - Agnieszka Ignatowicz, Helen Atherton, Celia Janine Bernstein, Carol Bryce, Rachel Court, Jackie Sturt, Frances Griffiths, 2019. Available at: https://journals.sagepub.com/doi/10.1177/2055207619845831 Accessed March 22, 2020.
10. Measures of Effectiveness, Efficiency, and Quality of Telemedicine in the Management of Alcohol Abuse, Addiction, and Rehabilitation: Systematic Review. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7055825/ Accessed March 19, 2020.
11. Brunet N, Moore DT, Lendvai Wischik D, Mattocks KM, Rosen MI. Increasing buprenorphine access for veterans with opioid use disorder in rural clinics using telemedicine. *Substance Abuse*. 2020;0:1–8.
12. Medicare Telemedicine Health Care Provider Fact Sheet CMS. Available at: https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet Accessed March 27, 2020.
13. Medicare Telehealth Frequently Asked Questions (FAQs) March 17, 2020. Available at: https://edit.cms.gov/files/document/medicare-telehealth-frequently-asked-questions-faqs-31720.pdf Accessed March 27, 2020.
14. SAMHSA. Use of Telemedicine While Providing Medication Assisted Treatment (MAT).1.
15. DEA. DEA SAMHSA buprenorphine telemedicine. March 2020. Available at: https://www.deadiversion.usdoj.gov/GDP/(DEA-DC-022)(DEA068)%20DEA%20SAMHSA%20buprenorphine%20telemedicine%20%20(Final)%20+Esign.pdf Accessed April 6, 2020.
16. Harm Reduction Coalition. Safer Drug Use During the COVID-19 Outbreak. March 2020. Available at: https://harmreduction.org/wp-content/uploads/2020/03/COVID19-safer-drug-use-1.pdf. Accessed April 1, 2020.
17. Aboujaoude E, Gega L, Parish MB, Hilty DM. Editorial: digital interventions in mental health: current status and future directions. *Front Psychiatry*. 2020;11:111.
18. Asgary R, Sckell B, Alcabes A, Naderi R, Adongo P, Ogedegbe G. Perceptions, attitudes, and experience regarding mHealth among homeless people in New York City shelters. *J Health Commun*. 2015;20:1473–1480.
19. Kertesz SG, Holt CL, Steward JL, et al. Comparing homeless persons' care experiences in tailored versus nontailored primary care programs. *Am J Public Health*. 2013;103(Suppl 2):S331–S339.
20. de Vet R, van Luijtelaar MJ, Brilleslijper-Kater SN, Vanderplasschen W, Beijersbergen MD, Wolf JR. Effectiveness of case management for homeless persons: a systematic review. *Am J Public Health*. 2013;103:e13–e26.