Supporting Self-isolation for COVID-19 With “Risk Mitigation” Prescribing and Housing Supports for People Who Use Drugs: A Case Report

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Background: Self-isolation is critical in preventing severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) transmission. However, people who use drugs face significant barriers in adhering to the regulations. As a response, several supportive measures have been introduced in British Columbia, including temporary housing access and “risk mitigation” prescribing, in which health care providers prescribe pharmaceutical alternatives to the unregulated drug supply to prevent withdrawal and reduce overdose risk.

Case summary: We present a case of a 39-year-old male with a history of polysubstance use and frequent overdoses, who had tested positive for SARS-CoV-2 and was able to successfully self-isolate. “Risk mitigation” prescribing, supportive housing, and harm reduction services were initiated for his self-isolation and connection to community outreach teams for ongoing support.

Discussion: This case illustrates how “risk mitigation” prescribing supported patient’s self-isolation, reduced his illicit drug use, and offered an opportunity for healthcare engagement. Access to safer alternatives to the toxic drug supply should continue beyond COVID-19 pandemic to address the persistent issues of contaminated drug supply and the overdose crisis in North America.

Key Words: housing support, opioid use disorder, polysubstance use, risk mitigation prescribing, self-isolation

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The COVID-19 pandemic has had a compounding effect on the overdose crisis in Canada. Travel restrictions and border closures heavily disrupted the unregulated drug supply chain resulting in increased contamination of drugs.1 National lockdown and social distancing measures to contain the virus disrupted access to addiction treatment and harm reduction services.2 As a result, 2020 marked the deadliest year for drug overdose related deaths, with 6214 people dying from illicit drug use in Canada.3

Self-isolation measures during COVID-19 infection have proven critical for prevention of disease transmission.4 However, people who use drugs (PWUD) often face significant barriers: lack of access to stable and noncrowded housing, and health and social services required to sustain basic needs during isolation, including substances necessary to prevent and treat withdrawal and cravings for individuals with ongoing substance use.1,5

In the province of British Columbia, Canada, several public health measures were undertaken to support PWUD and who were unstably housed to self-isolate if infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus. First, temporary housing at hotels was secured for PWUD who did not require hospitalization to safely self-isolate for COVID-19, with onsite medical and nonmedical staff who supported clients to address health and social service needs.6 Additionally, in March 2020, provincial guidance was introduced for health care providers to offer “risk mitigation” prescribing, defined as provision of prescription pharmaceutical alternatives to the unregulated drug supply to support social distancing and self-isolation for COVID-19 and to reduce overdose risk during the pandemic.7 These regulated alternatives are provided to those who have a history of ongoing substance use, increased risk of harms associated with drug use, and who are at risk of or confirmed to have SARS-CoV-2 infection. For instance, hydromorphone and morphine sulfate extended release can be prescribed to people at risk of opioid overdose, and dextroamphetamine and methylphenidate can be prescribed to those with active stimulant use disorder.7 The dosage and its adjustment would be decided collaboratively with the patient, based on their preference, pattern and type of substance use, and tolerance level.7

Here, we present a patient case of “risk mitigation” prescribing for an individual with a history of polysubstance use disorder and frequent overdoses, who tested positive for SARS-CoV-2 virus and successfully completed self-isolation.

CASE DESCRIPTION

In March 2020, a 39-year-old man with no fixed address presented to hospital with history of presyncope, vomiting, intermittent fevers, and back pain. The patient’s prior medical history included nicotine, opioid, and stimulant use disorders and occasional use of other substances such as cannabis,
benzodiazepines, and hallucinogens. The patient reported using 0.15 grams of illicitly manufactured powdered fentanyl and 0.1–0.2 grams of crystal methamphetamine daily by intravenous route. He reported a history of multiple overdoses, including 5 in the week before presenting to health care, all requiring naloxone resuscitation by a community bystander. In the past, he had tried various forms of opioid agonist treatment available in Canada, including methadone, buprenorphine/naloxone, and slow-release oral morphine, though was not on any current prescribed medications.

Upon presentation to hospital, findings from a chest radiograph were consistent with left lower lobe pneumonia. The patient was started on antimicrobial therapy for community acquired pneumonia and had SARS-CoV-2 swabs and blood cultures drawn for further investigation. Soon after admission, a patient-initiated discharge occurred, and his SARS-CoV-2 test came back positive after his departure. The local public health unit, therefore, initiated contact tracing for the patient.

The patient was located on the same day he left hospital and informed of the SARS-CoV-2 result. He was clinically assessed and deemed clinically stable enough to self-isolate in a private room at a single room occupancy. The patient was agreeable to this but expressed concerns regarding access to drugs to prevent and manage withdrawal from unregulated substances while in self-isolation. He declined opioid agonist treatment initiation due to these medications not being effective for adequately reducing cravings, withdrawal, and substance use on past treatment attempts.

He was assessed by an addiction medicine physician and “risk mitigation” prescribing was initiated to support self-isolation, using pharmacologic agents selected based on features of the patients’ history of unregulated substance use. These were provided through daily delivery to his room by a nearby pharmacy (Table 1):

The prescriber recommends oral consumption of these medications but routes of consumption of the prescribed pharmaceutical alternatives can be different depending on each patient’s preference such as swallowing, chewing, snorting, and injecting and thus are not specified in Table 1. The patient in our case had reported using dextroamphetamine, morphine, and hydromorphone 80% of the time via oral route and 20% via injection. As part of harm reduction services, he was given education and access to injection supplies, including Sterifilt Fast Filters 15 mm (Apothicom, Paris, France) which allow patients to filter tablet medications, originally intended for oral intake to be used for injection.

During self-isolation, outreach nurses from the healthcare team clinically assessed the patient 2 to 3 times a day, including respiratory signs and symptoms from COVID-19, and in collaboration with a physician with expertise in addiction medicine, assessed for any side effects from prescribed medications such as oversedation.

The patient was able to self-isolate completely as per public health recommendations and he showed resolution of SARS-CoV-2 symptoms. His self-isolation period lasted 9 days, during which time the patient did not use unregulated drugs and reported that symptoms of withdrawal or cravings were well managed. To reduce ongoing overdose risk associated with unregulated substance use, “risk mitigation” prescribing was continued upon return to a community shelter setting via daily dispensed and delivered medications from a community pharmacy. Oral opioid agonist treatment continued to be offered and was declined by the patient, citing past experiences with these medications, though he had a clearly articulated desire to reduce overdose risk via other approaches. He was connected to a community outreach team that focuses on clients at high risk for overdose, to support ongoing health and social service access. During his isolation, his written consent was obtained for publication of the case.

**DISCUSSION**

This case describes a PWUD experiencing homelessness who was diagnosed with COVID-19 and successfully completed self-isolation in a COVID-19 hotel with provision of “risk mitigation” prescribing. Despite the patient facing significant health and socio-structural barriers, this case demonstrates how “risk mitigation” prescribing in a supported environment facilitated completion of self-isolation for COVID-19 and prevented overdose and other harms due to ongoing substance use through flexibly prescribed medications used by the patient as an alternative to the contaminated unregulated drug supply. This case further illustrates how “risk mitigation” prescribing acted as a bridge to engagement in healthcare and substance use treatment, and housing supports for this patient.

BC’s “risk mitigation” interim clinical guidance was developed in the context of the COVID-19 pandemic and rising overdose deaths during the pandemic and was reviewed by key regulatory bodies including the provincial Ministry of Health, Ministry of Mental Health and Addictions, and the regulatory colleges for physicians, nurses, and pharmacists. The cost of all medications included in the “risk mitigation” guidance document are covered under BC PharmaCare.7–8

| Name | Dose/Amount and Frequency |
|------|--------------------------|
| Hydromorphone (Dilaudid) 8 mg tablets | 1–2 tabs q1h PRN* to a maximum of 12 tabs (96 mg) per 24 hours |
| Morphine sulfate extended release (M-eslon) 100 mg tablets | 150 mg twice daily |
| Dextroamphetamine (Dexedrine) 5 mg tablets | 5–10 mg q3h PRN* to a maximum of 20 mg per 24 hours |
| Dextroamphetamine sulfate extended release (Dexedrine Sprints SRC) 10 mg tablets | 20 mg twice daily |
| Nicotine 25 mg patch | 21 mg patch once daily |
| Nicotine 4 mg gum | 1 gum q1h PRN* to a maximum of 10 per 24 hours |

*PRN, pro re nata; when necessary
Additional overdose prevention strategies recommended for patients being prescribed medications for “risk mitigation” include using with others and with 2 meters of separation to prevent COVID-19 transmission, or using a phone/video buddy system. Early findings from evaluation of “risk mitigation” prescribing among a sample of PWUD in Vancouver, BC, found that half of those who used opioids had heard of “risk mitigation” prescribing and 18% had accessed medications for this purpose. Geographical, client demographic, and funding gaps to support “risk mitigation” strategies highlight the need to target barriers to implementation, service delivery, and sustainability to support expanded access.

The government’s response to escalating overdose deaths in 2020 has shown us how the COVID-19 pandemic acted as a major catalyst to implement novel strategies to address the contaminated drug supply. The same urgency is necessary to provide ongoing support beyond COVID-19 and to address the unmet needs of PWUD. Clinical guidance should continue to evolve to relieve the immediate harms related to the contaminated drug supply through “prescribed safer supply” prescribing, independent of COVID-19 infection risk. The health and social impacts of “risk mitigation” prescribing during the COVID-19 pandemic should be thoroughly evaluated to guide future evolution of these strategies moving forward. Expanded access to pharmaceutical options and through a range of settings, including low-barrier harm reduction service settings, coupled with decriminalization and drug regulation policy approaches, will likely prove critical to the goal of mitigating the harms of the contaminated drug supply driving the overdose crisis throughout the United States and Canada.

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