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Caring for hospitalized patients during dual public health emergencies

Andrea Ryan a,b,d,*, Emma Garrod a,d, Nadia Fairbairn a,c,d

a British Columbia Centre on Substance Use, 400-1045 Howe Street, Vancouver, BC V6Z 2A9, Canada
b Department of Family Practice, University of British Columbia, 5950 University Boulevard, Vancouver, BC V6T 2A1, Canada
c Department of Medicine, University of British Columbia, 2775 Laurel Street, Vancouver, BC V6H 0A5, Canada
d Providence Health Care, 1081 Burrard Street, Vancouver, BC V6Z1Y6, Canada

1. Comment

People who use drugs (PWUD) are facing a number of unique health-related, socio-structural, and environmental challenges arising from the coronavirus disease 2019 (COVID-19) pandemic. As the world struggles to cope, North America has been particularly hard hit with more than 9000 deaths in Canada alone (WHO, 2020). For PWUD in Canada, this is compounded by the ongoing overdose crisis, claiming the lives of more than 15,000 Canadians since 2016 (Canada, 2020). Some project that the overdose crisis will continue to worsen as COVID-19 restrictions affect the illicit drug supply (United Nations, 2020), and indeed in British Columbia, Canada, the spring of 2020 saw the worst monthly totals for overdose deaths in provincial history (British Columbia Coroner’s Report, 2020).

Hospital settings are a key intersection point for the dual COVID-19 and opioid overdose public health emergencies. PWUD have higher health care utilization than non-substance using counterparts (Palepu et al., 2001) and data from one cohort showed that more than half of individuals who died of overdose received care in a hospital the year preceding their death (Otterstatter et al., 2018). Furthermore, reports of ongoing substance use among hospital inpatients are common (McNeil, Small, Wood, & Kerr, 2014; Strike et al., 2020). PWUD can also face disproportionate risk of contracting COVID-19 and experiencing hospitalization due to structural barriers, namely homelessness and poverty, that impact ability to implement public health measures, such as regular hand hygiene and physical distancing recommendations (Karamouzian, Johnson, & Kerr, 2020). Unfortunately, hospitalization has long presented risks and barriers to PWUD; the literature has documented well the higher rates of leaving against medical advice, incomplete treatment, and readmissions (Alfandre, 2009; Ti & Ti, 2015). Patients report unmanaged pain and withdrawal as common precipitating factors for leaving against medical advice (AMA) (McNeil et al., 2014), and health care providers are often underprepared to provide care to PWUD (Braithwaite & Nolan, 2019; Morgan, 2014).

Novel approaches to mitigate risk and improve treatment engagement for PWUD admitted to the hospital are therefore critical to a coordinated public health response to COVID-19. Providing care for PWUD with suspected, confirmed, or at risk of contracting COVID-19 admitted to the hospital demands that health care providers be innovative in promoting physical distancing and treatment engagement to improve outcomes. Vancouver is an epicenter of the overdose crisis in Canada, and St. Paul’s Hospital (SPH) cares for a large number of PWUD, which led to the creation of an Addiction Medicine Consult Team (AMCT). Our hospital has 454 beds and the AMCT follows one quarter of all hospital patients at any given time; this service sees more than 4500 addiction medicine inpatients every year. Following establishment of the AMCT, spanning a six-year period from 2013 to 2019, the hospital implemented a number of additional programs and services prior to the COVID-19 pandemic: take-home naloxone kits and harm reduction supplies for inpatients; a peer-run supervised consumption site located in a trailer on hospital grounds; an outpatient rapid access addiction clinic; and psychosocial programs including inpatient contingency management and a number of mutual self-help groups. In response to the pandemic, the hospital implemented additional services to complement existing services, namely pursuing episodic supervised consumption and establishing provision of pharmaceutical alternatives to the toxic drug supply.

Supervised consumption services for hospital inpatients are important as ongoing substance use among inpatients often happens in isolated, unsafe areas (Grewal et al., 2015). Supervised consumption has the potential to improve safety of hospital patients and engagement in substance use treatment (Dong, Brouwer, Johnston & Hyska, 2020), and research has been shown it to reduce overdose-related harms and promote treatment uptake when implemented in the community (Kenedy, Karamouzian, & Kerr, 2017). The peer-run supervised
consumption site at SPH has seen more than 27,000 visits since opening in May 2018, with 90 overdoses reversed with naloxone (Vancouver Coastal Health, 2020). Currently, to prevent risk of COVID-19 spread, plans to implement alternative delivery models to provide harm reduction and supervised consumption services for inpatients are underway. One proposed solution is “episodic” supervised consumption service provision, whereby a nurse safely supervises injection in a patient’s room at the bedside, following a structured protocol (British Columbia Centre for Disease Control, 2020), allowing the patient to remain in hospital without having to exit to use the OPS located in a trailer outside. This alternative approach adheres to hospital infection control measures for COVID-19 and has potential to be implemented more broadly for PWUD admitted to hospitals since it falls within nursing scope and is adaptable to settings that may not have a high enough volume to warrant a staffed supervised consumption site.

To further address the needs of hospitalized PWUD during the pandemic, the AMCT has implemented a novel prescribing protocol with the immediate aim of treating drug cravings and withdrawal. Informing by a recently published guidance document from provincial and government organizations, this protocol proposes prescribing medications such as prescription opioids, psychostimulants, benzodiazepines, and alcohol to those with active substance use disorders who are diagnosed with, or at high risk for contracting, COVID-19 (British Columbia Centre on Substance Use, 2020). This approach is not intended as treatment for substance use disorder (SUD) but provides legal, regulated, pharmaceutical alternatives to the increasingly toxic illicit drug supply (Drugs, 2019; Thomson et al., 2019). The inpatient “pandemic prescribing” protocol at our hospital initially targeted patients under investigation for or confirmed COVID-19 positive. However, to prevent spread of COVID-19 for those at risk of contracting the disease this prescribing was rapidly extended to all patients with SUD who the AMCT followed (approximately 375 new patients per month). The goals of this prescribing are to promote physical distancing, reduce activities required to obtain and use drugs, and reduce barriers to remaining in the hospital for medical care. In addition to providing established therapies for opioid use disorder, such as buprenorphine, methadone, or slow-release oral morphine (British Columbia Centre on Substance Use, 2017), some practitioners in British Columbia have considered using a wider array of short-acting opioids, including fentanyl. Administered through various routes, including intravenously, practitioners can give these short-acting opioids alone or combined with evidence-based treatment modalities depending on the patient’s goals. In addition, cannabis products in the form of oral capsules are prescribed for those who would otherwise be leaving their rooms to smoke. Further consideration has also been given to the use of prescribed benzodiazepines and psychostimulants for individuals using these substances illicitly as there have been a significant number of deaths in our region due unintentional fentanyl ingestion secondary to cross contamination of fentanyl with other illicit substances (Fleming, Barker, Ivins, Vakharia, & McNeil, 2020). Specifically, illicit fentanyl was detected in 72% and 77% of cocaine- and methamphetamine-related deaths, respectively (Fleming et al., 2020).

A number of local and regional factors assisted with implementation of this protocol at our hospital. Locally at SPH, given the medical deterioration that can occur for hospitalized COVID-19 patients and potential effects some pandemic prescribing medications can have on respiratory drive, addiction medicine specialist physicians do all prescribing, also providing rigorous clinical assessments and daily follow-up. Physicians are available 24 h per day to address any issues in real time to support members of the health care team to gain clinical experience with this novel prescribing approach. There is also a well-established harm reduction philosophy of care and an official harm reduction policy at SPH, which aligns with the goals of pandemic prescribing for hospitalized patients with SUDs. Regionally, the provincial risk mitigation document that informed the development of our inpatient pandemic prescribing protocol was endorsed by the BC provincial Ministry of Health as well as a number of regional health authorities and regulatory colleges in the province, including the College of Physicians and Surgeons of BC, the College of Pharmacists of BC, and the BC College of Nursing Professionals. This lent weight to the recommendations contained within the document and helped to garner support from physicians and allied health providers across disciplines.

Since implementation, we have noted several advantages to pandemic prescribing. Foremost, it promotes patient and public health safety, as use of toxic illicit substances decreases and patients self-isolate and complete treatment. Further, providers can use it to tailor approaches to achieve a patient’s stated goals, and it gives both prescriber and patient more flexibility. As previously noted, substance use often continues despite hospitalization, and this approach can serve as an opportunity to manage withdrawal and cravings using a harm reduction approach. Indeed, PWUD frequently report stigmatizing encounters in health care settings (Carusone et al., 2019; Pauly, McCall, Browne, Parker, & Mollison, 2015; van Boekel, Brouwers, van Weeghel, & Garretsen, 2013), which may be a contributing factor to rates of leaving hospital AMA; approaches such as the ones discussed here communicate nonjudgment toward substance use and a commitment to meeting patients’ needs. Research to determine whether these approaches reduce rates of leaving AMA and subsequent readmissions, as well as COVID-19 outcomes and overdose risk, will be essential to informing a future state of hospital-based care for PWUD.

Across disciplines, COVID-19 has required swift and decisive action to effectively treat this disease and reduce its spread. Our hospital has undertaken new and innovative approaches to improve care of hospitalized PWUD in the face of dual crises from COVID-19 and the overdose epidemic. While these strategies may require a bold shift in the approach to care of PWUD, in settings where hospital-based addiction medicine services exist, very little financial or operational investments are required for successful implementation. Not only can this lead to immediate improvements in health outcomes for PWUD in the era of COVID-19, but hopefully have lasting effects on the hospital management of SUD more broadly in the postpandemic world.

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CRedit authorship contribution statement

AR, EG and NF conceptualized this manuscript. AR and EG developed the first draft. All authors were given the opportunity to provide input, and approved of the final draft.

Declaration of competing interest

The authors declare no financial conflicts of interest. AR and NF were involved in drafting and reviewing the Risk Mitigation in the Context of Dual Public Health Emergencies interim clinical guidance document published by the British Columbia Centre on Substance Use.

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