Contents lists available at ScienceDirect

International Journal of Drug Policy

journal homepage: www.elsevier.com/locate/drugpo

Commentary Hospital policy as a harm reduction intervention for people who use drugs

Robin Lennox^{a,c,*}, Leslie Martin^{b,c}, Candice Brimner^c, Tim O'Shea^{c,d}

^a Department of Family Medicine, McMaster University, Hamilton, Canada

^b Department of Medicine, Division of General Internal Medicine, McMaster University, Hamilton, Canada

^c St. Joseph's Healthcare, Hamilton, Canada

^d Department of Medicine, Division of Infectious Diseases, McMaster University, Hamilton, Canada

ARTICLE INFO

Keywords: Harm reduction hospital policy acute care

ABSTRACT

Hospitals are a critical touchpoint for people who use drugs (PWUD). However, hospital policies, both formal and informal, can have a detrimental impact on PWUD in acute care settings. Introducing new policies, or revising existing policies that inadvertently harm or stigmatize PWUD while hospitalized, could be an effective harm reduction intervention for this high-risk population. This paper explores seven areas where institutional policy change could improve the hospital experience of PWUD: (1) use of nonprescribed substances in hospital, (2) supporting inpatient addiction consultation services (3) in-hospital supervised consumption spaces (4) supply and distribution of safe drug use equipment and naloxone, (5) role of security services and personal searches, (6) use of hospital restrictions, and (7) involvement of PWUD in policy development.

Background

Hospitals are a critical touchpoint for people who use drugs (PWUD). PWUD are admitted to hospital and visit the emergency department more frequently than the general population (Kendall et al., 2017). PWUD are also less likely to have a primary care provider, and therefore more likely to rely on hospital-based services for management of their acute and chronic medical conditions (Artenie et al., 2015). Despite the frequency of interactions, the relationship between hospitals and the community of PWUD remains challenging. Hospitals have been identified as a 'risk environment' for PWUD, wherein social and structural forces increase the risk of harm PWUD may experience while hospitalized (McNeil, Small, Wood, & Kerr, 2014). There is also a mutual mistrust that exists between healthcare providers and PWUD (McNeil et al., 2014; Merrill, Rhodes, Deyo, Marlatt, & Bradley, 2002). Healthcare providers have articulated fear of deception and lack of training as barriers to establishing a therapeutic alliance and providing consistent, quality care to PWUD while hospitalized (Merrill et al., 2002). In turn, PWUD have experienced inconsistent care, stigmatization, and mistreatment from healthcare providers that has reinforced their mistrust in the healthcare system (McNeil, Kerr, Pauly, Wood, & Small, 2016; McNeil et al., 2014; Merrill et al., 2002).

Due to mistrust and fear of stigma, PWUD may delay or avoiding seeking health services when they have a concern, leading to increased disease severity and missed opportunities for early intervention (Chan Carusone et al., 2019; Paquette, Syvertsen, & Pollini, 2018).

* Corresponding author. *E-mail address:* robin.lennox@medportal.ca (R. Lennox).

https://doi.org/10.1016/j.drugpo.2021.103324 0955-3959/© 2021 Elsevier B.V. All rights reserved. When they do access hospital care, PWUD have higher rates (25-30%) of unplanned or patient-initiated discharge, sometimes referred to as discharge against medical advice, compared to the general population (Ti & Ti, 2015). Common reasons for patient-initiated discharge include inadequate pain control or withdrawal management, negative interactions with healthcare providers or security services, and experience of hospital restrictions (McNeil et al., 2014; Pollini et al., 2021; Simon, Snow, & Wakeman, 2019; Ti & Ti, 2015). Patient-initiated discharges represent a missed opportunity for healthcare providers to engage and build trust with PWUD, and are associated with significant adverse health outcomes, including higher rates of hospital readmission and 30-day mortality (Choi, Kim, Qian, & Palepu, 2011; Glasgow, Vaughn-Sarrazin, & Kaboli, 2010; Southern, Nahvi, & Arnsten, 2012; Ti & Ti, 2015).

Hospital policy can have both direct and indirect effects on the patient care experience. Many hospitals have existing policies that either directly or indirectly impact the experience of PWUD, mostly regarding substance use on-site and related concerns. Though intended to ensure the safety of both patients and hospital staff, it is clear that some hospital policies relating to substance use can reinforce the stigma experienced by PWUD in healthcare settings, and deter them from receiving care (McNeil et al., 2014; Priest, Englander, & McCarty, 2021).

While there is no universally accepted definition, 'harm reduction' has been described as an approach that includes the use of policies and practices aimed at reducing the negative consequences or harms associated with drug use (Canadian Research Initiative in Substance Misuse, 2020a). Harm reduction interventions can occur at individual, com-





munity, and system levels. As a major point-of-contact for PWUD, hospitals have the unique opportunity to use institutional policy change as a harm reduction intervention for PWUD. We present seven areas where institutional policy change could improve the hospital experience of PWUD: (1) use of nonprescribed substances in hospital, (2) supporting inpatient addiction consultation services (3) in-hospital supervised consumption spaces (4) supply and distribution of safe drug use equipment and naloxone, (5) role of security services and personal searches, (6) use of hospital restrictions, and (7) involvement of PWUD in policy development. These areas were identified due to their contribution to the adverse outcomes experienced by PWUD in hospital, particularly patient-initiated discharge.

(1) Use of nonprescribed substances in hospital

Many hospitals employ an abstinence-based approach to drug use for hospitalized patients (Grewal et al., 2015; McNeil et al., 2014). However, these policies are largely ineffective at reducing or eliminating nonprescribed drug use. In a Vancouver-based study, 43.9% of PWUD reported using nonprescribed drugs during their hospitalization (Grewal et al., 2015). PWUD may have a multitude of reasons for using nonprescribed drugs while admitted to hospital, including inadequate pain control or withdrawal management (Grewal et al., 2015; Strike et al., 2020). In attempts to avoid consequences associated with abstinence-based policies, PWUD may engage in higherrisk drug use practices while in hospital, such as using alone, using in unclean or shared spaces (i.e. washrooms), or reusing drug equipment (Dong, Brouwer, Johnston, & Hyshka, 2020; McNeil et al., 2014; McNeil et al., 2016; Strike et al., 2020). PWUD may also leave hospital prematurely to avoid violating abstinence-based policies, contributing to higher rates of patient-initiated discharge (McNeil et al., 2016).

Healthcare providers have called for institutional policy to provide clearer guidance on how to manage nonprescribed drug use in hospitalized patients, which can be challenging to navigate (Horner et al., 2019; Strike et al., 2020). Healthcare providers have expressed fears of liability, adverse patient outcomes, and personal risk (occupational exposures or needle stick injury) associated with nonprescribed drug use (Strike et al., 2020). In the absence of institutional policy to guide management, healthcare providers are left to implement and enforce their own informal policies (Angelis et al., 2020; Horner et al., 2019; Strike et al., 2020). Provider-dependent strategies exist on a wide spectrum and may include: involuntary discharge, altered medication prescribing, increased behavioural monitoring, drug confiscation, use of treatment contracts, or harm reduction interventions (Kosteniuk et al., 2021; Strike et al., 2020). Variability in these informal policies can lead to inconsistencies in care, causing conflict and reinforcing mistrust between PWUD and their healthcare providers (Merrill et al., 2002; Strike et al., 2020).

As many PWUD identify inadequate pain and withdrawal management as reasons for nonprescribed drug use while hospitalized (Grewal et al., 2015; Strike et al., 2020), hospital policy related to these events should direct healthcare providers to first engage PWUD in an open, non-judgmental conversation about their reason for use. This conversation should aim to identify opportunities to improve symptom management and thereby eliminate the need for nonprescribed drug use while the individual is hospitalized (Canadian Research Initiative in Substance Misuse, 2020a). Healthcare providers have articulated feeling hesitant, undertrained, or fearful of liability when prescribing pain medication, particularly opioids, to people who use drugs (Merrill et al., 2002; Strike et al., 2020). In other cases, administration of medication may be withheld or delayed due to provider perceptions of an individual's pain requirements or lack of appreciation for the urgency of medication timing (McNeil et al., 2014; Merrill et al., 2002). Some healthcare providers have also expressed fear of worsening or contributing to a patient's substance use disorder by administering opioids (Horner et al., 2019). As a result, pain and withdrawal in this patient population is often undertreated, leaving PWUD at increased risk of using nonprescribed drugs to manage their symptoms (Grewal et al., 2015). Targeted education and training for healthcare providers on adequate pain and withdrawal management for PWUD is essential in order to reduce the need for nonprescribed drug use while hospitalized. This training may be facilitated by local experts or addiction consultation services, which are described further below (Priest & McCarty, 2019).

For individuals with opioid use disorder, treatment with opioid agonist therapy, such as methadone, buprenorphine, or slow-release oral morphine is the standard of care and should be initiated in hospital (Bruneau et al., 2018). Opioid agonist therapy has strong evidence for alleviating withdrawal symptoms, opioid cravings, and reducing nonprescribed opioid use (Bruneau et al., 2018). When initiated in hospital, opioid agonist therapy may improve retention in treatment by relieving symptoms of opioid withdrawal and cravings that leave patients at risk of patient-initiated discharge (Donroe, Holt, & Tetrault, 2016; Fanucchi & Lofwall, 2016). Ensuring that opioid agonist therapy medications are available on hospital formularies and that protocols are developed to guide healthcare providers in their appropriate use will be an essential first step in addressing the needs of people who use opioids while hospitalized (Priest et al., 2021).

(2) Supporting inpatient addiction consultation services

Despite PWUD having more frequent hospitalizations than the general population, substance use disorders are rarely addressed during admission to acute care. In one retrospective study of PWUD with infective endocarditis, only 23.7% of patients were offered addiction consultation in hospital and only 7% were discharged on medications for their substance use disorder (Rosenthal, Karchmer, Theisen-Toupal, Castillo, & Rowley, 2016).

Inpatient addiction consultation services, which can include multidisciplinary team members such as addiction medicine physicians, nurse practitioners, addiction counselors, and peer support workers, are increasingly being used to address the substance-related needs of PWUD while admitted to hospital (Englander, Mahoney, et al., 2019; Priest & McCarty, 2019). The role of addiction consultation services can vary, but often include clinical interventions aimed at reducing nonprescribed substance use, such as adequate pain control and withdrawal management, initiation of opioid agonist therapy, or provision of pharmaceutical-grade opioids or stimulants to reduce the need for nonprescribed substances (Canadian Research Initiative in Substance Misuse, 2020b; Priest & McCarty, 2019).

Addiction consultation services have been found to be effective in increasing rates of treatment engagement in-hospital and after discharge for inpatients with substance use disorder (Englander, Dobbertin, et al., 2019). In addition, one prospective cohort study demonstrated reduced addiction severity and increased number of days of drug abstinence in the 30-days post-discharge for patients seen by addiction medicine consultation services while hospitalized (Wakeman, Metlay, Chang, Herman, & Rigotti, 2017). The use of addiction consultation services has also been shown to reduce 30-day readmission rates for inpatients with substance use disorder (Wakeman et al., 2020).

Addiction consultation services can also serve to increase trust between PWUD and their healthcare providers in hospital. In one mixedmethods study, PWUD reported that their interactions with the addiction consultation team humanized their care, increased their sense of agency, and promoted more trusting patient-provider relationships (King, Collins, Patten, Nicolaidis, & Englander, 9000). The integration of peer support workers with lived experience of drug use into addiction consultation teams is a growing area of study. Peer workers for hospitalized PWUD have been identified as being particularly effective in engaging marginalized patients, facilitating care for hospitalized PWUD, and building trust between healthcare providers and PWUD (Collins et al., 2019; Lennox, Lamarche, & O'Shea, 2021).

In addition to their clinical care, addiction consultation services have been noted to play a critical role in education and culture change within hospitals, particularly regarding best practices in the care of patients with substance use disorders (Priest & McCarty, 2019). Addiction consultation services often take on leadership roles in policy and protocol development, and act as resource for their colleagues in other medical specialties (Priest & McCarty, 2019).

(3) In-hospital supervised consumption spaces

Even if efforts are made to adequately manage acute pain, withdrawal, and craving for substances, it is acknowledged that some patients will continue to use nonprescribed drugs while hospitalized (Grewal et al., 2015). As such, another approach to mitigate the harms associated with drug use in hospitals is the implementation of supervised consumption spaces for acute care inpatients (Dong et al., 2020; Sharma, Lamba, Cauderella, Guimond, & Bayoumi, 2017). Supervised consumption spaces are recommended across the continuum of care for PWUD and have been shown to reduce the harms associated with drug use, such as overdose deaths and transmission of blood-borne infections (Dong et al., 2020; Kerr, Tyndall, Lai, Montaner, & Wood, 2006). A large systematic review on supervised consumption spaces revealed that there has never been an overdose fatality within a supervised consumption facility (Potier, Laprévote, Dubois-Arber, Cottencin, & Rolland, 2014), and that presence of a supervised consumption spaces can even reduce overdose rates in the surrounding community (Marshall, Milloy, Wood, Montaner, & Kerr, 2011).

PWUD have identified in-hospital supervised consumption spaces as one offering that would allow them to complete hospital treatment in the context of ongoing drug use (McNeil et al., 2016). However, use of supervised consumption spaces in acute care settings is rare, with the first in-hospital supervised consumption space in North America only opening in Edmonton, Alberta, in 2018 (Dong et al., 2020). A qualitative study examining the uptake and accessibility of this novel in-hospital supervised consumption space noted that PWUD identified the service as allowing them to reduce drug-related risks while in hospital, such as using in unclean or shared spaces, using alone, or reusing drug use equipment (Kosteniuk et al., 2021).

The presence of a designated space for drug use to take place allowed PWUD to avoid using substances in their rooms or elsewhere in the hospital, and also alleviated some concerns about potentially exposing hospital staff to their drug use equipment (i.e. used needles) (Kosteniuk et al., 2021). However, uptake was affected by fear among some PWUD that they may be criminalized, stigmatized or otherwise mistreated by their healthcare team if they used the supervised consumption space (Kosteniuk et al., 2021). This highlights the need for harm reduction interventions to be embedded within a broader hospitalwide harm reduction approach and paired with anti-stigma initiatives and meaningful patient engagement (Hyshka et al., 2019).

(4) Distribution of sterile drug use equipment and naloxone

Acknowledging that nonprescribed drug use occurs frequently among hospitalized patients, consideration should be given to strategies to reduce the harms associated with drug use on-site (Canadian Research Initiative in Substance Misuse, 2020a; Rachlis, Kerr, Montaner, & Wood, 2009). Harm reduction programs, such as needle and syringe programs and take-home naloxone distribution, have been shown to be highly cost-effective and feasible interventions to reduce drug-related harms (MacArthur et al., 2014; (Canadian Research Initiative in Substance Misuse, 2020a). However, these services are not widely available in hospital settings (Canadian Research Initiative in Substance Misuse, 2020a; Sharma et al., 2017).

Take-home naloxone kits are recommended for any individual at risk of experiencing or witnessing an opioid overdose (World Health Organization, 2014). In a large systematic review, take-home naloxone programs were shown to have a strong association with overdose survival (96.3%) and a low rate of adverse events (McDonald & Strang, 2016). Any patient who may use opioids or be at risk of overdose during their hospitalization should be offered a naloxone kit at the time of admission (Canadian Research Initiative in Substance Misuse, 2020a). Providing the take-home naloxone kit upon admission rather than deferring until discharge is recommended due to the high rates of unanticipated patient-initiated discharge among PWUD, as well as the risk of nonprescribed drug use during admission (Canadian Research Initiative in Substance Misuse, 2020a).

Pilot programs have demonstrated that overdose education and takehome naloxone distribution is a feasible and effective intervention to engage high-risk patients while admitted to general medical units (Jakubowski et al., 2019). Despite this, significant barriers to the implementation of naloxone distribution programs within hospitals have been identified. These barriers include stigma towards PWUD, negative healthcare provider attitudes towards naloxone distribution, lack of education and training, workflow challenges, and lack of funding (Gunn et al., 2018; Punches, Soliman, Freiermuth, Lane, & Lyons, 2020). In order for hospitals to be successful in expanding access to take-home naloxone, it will be important for them to address these barriers in implementation.

While in hospital, PWUD have also described difficulty accessing sterile drug use equipment, including syringes, cookers, filters, tourniquets, sterile water, and alcohol swabs (McNeil et al., 2014). As a result, PWUD may engage in higher-risk drug use practices while hospitalized, such as re-using or sharing drug use equipment, increasing their risk of infectious complications (McNeil et al., 2014). Provision of sterile drug use equipment has been shown to be an effective strategy to reduce infectious complications of injection drug use, including HIV transmission (Canadian Research Initiative in Substance Misuse, 2020a; Palmateer et al., 2010). However, there is a paucity of literature on the distribution of sterile drug use equipment within hospitals (Brooks, O'Brien, Salvalaggio, Dong, & Hyshka, 2019).

An evaluation of harm reduction kit distribution program at a small hospital focused on the care of people living with HIV in Toronto, Ontario, demonstrated that safer drug use equipment distribution was both feasible and widely accepted by both hospital staff and patients with active drug use (Miskovic et al., 2018). In this program, no-cost safer injection and safer inhalation kits were available to hospital inpatients and outpatients at four locations in the hospital 24-hours per day (Miskovic et al., 2018). Hospital staff expressed one benefit of the program was that it created a greater sense of openness, and enhanced their ability to build trust and communicate with patients about their drug use (Miskovic et al., 2018).

In a tertiary care hospital in Edmonton, Alberta, distribution of sterile syringes was coordinated through the addiction medicine consultation service. In this model, 56% of potentially eligible individuals with recent injection drug use were offered sterile drug use equipment by the addiction medicine consult team upon intake, and 37% of those offered accepted syringes (Brooks et al., 2019). It was hypothesized that the uptake in this program may have been hindered by the requirement for individuals to discuss their need for syringes with members of their healthcare team (Brooks et al., 2019). In designing sterile drug use equipment distribution programs within hospital, consideration should be given to modes of delivery that minimize potentially stigmatizing interactions that could deter uptake, such as peer-led delivery or selfservice in discrete, designated areas (Sharma et al., 2017).

In conjunction with the provision of safer drug use equipment, hospitals should provide discrete and accessible sharps disposal containers, preferably located in the patient's hospital room or bathroom (Canadian Research Initiative in Substance Misuse, 2020a). For patients with mobility issues, bedside sharps containers can be offered. Provision of sharps containers can promote both patient and staff safety by encouraging safe and immediate disposal of drug-use equipment.

Though there is little implementation science literature on harm reduction-oriented policies in hospital, one study from Edmonton, Alberta, highlighted the importance of harm reduction interventions, like sterile syringe distribution, being part of a hospital-wide harm reduction approach (Hyshka et al., 2019). In that study, PWUD articulated the challenges experienced when there is discordance between having access to some harm reduction interventions, while also experiencing negative interactions with some healthcare providers due to abstinencebased approaches (Hyshka et al., 2019). To address some of the implementation barriers for sterile drug use equipment distribution and takehome naloxone programs, hospitals may consider partnering with existing community agencies, public health units, or outreach teams specializing in harm reduction services to assist in policy development, implementation and necessary education and training of hospital personnel (Canadian Research Initiative in Substance Misuse, 2020a).

(5) Use of security services and search of personal belongings

Many hospitals, particularly in larger urban settings, employ private security. In other settings, local police or law enforcement officers may be responsible for providing security services in hospitals. The role of security services in hospitals may vary, but often includes a mandate to promote patient and staff safety and to enforce institutional policies when needed.

The presence of security services in hospital settings poses unique challenges for PWUD. Due to many structural and social factors, PWUD have more frequent interactions with both public and private policing, and many have a history of incarceration (Kennedy et al., 2016; Markwick, McNeil, Small, & Kerr, 2015). PWUD report frequent encounters with security services operating in public spaces, such as malls, event venues, and healthcare services (Markwick et al., 2015). These interactions are often negative, including reports of discriminatory surveillance, verbal abuse, and physical violence (Kennedy et al., 2016; Markwick et al., 2015).

The presence of security services in hospitals can be an additional barrier for PWUD when accessing health services (Markwick et al., 2015). PWUD have identified the presence of security as a deterrent to seeking care in hospitals, impeding their ability to attend to their health concerns (Markwick et al., 2015). PWUD have also reported being denied entry or forcibly removed from healthcare spaces by security services, resulting in delayed access to care or interruptions in treatment (Markwick et al., 2015).

Institutional policies regarding possession of nonprescribed substances or drug use equipment on hospital premises can lead to stigmatizing interactions between hospital security services and PWUD. For example, hospital policy may dictate that security services be called to complete a search of a patient's hospital room or personal possessions if there is a concern raised about drug use on-site (Angelis, 2020; Kelsey C. Priest et al., 2021). Involvement of security services has also been noted to include increased monitoring and surveillance of PWUD in hospital, including 24-hour video monitoring or "sitters" assigned to patients while hospitalized (Pollini et al., 2021).

Even when formal policy does not exist, use of security to search hospital rooms or personal possessions is a common practice (Horner et al., 2019; Pollini et al., 2021; Strike et al., 2020). In one qualitative study, acute care nurses described using security services frequently to do personal possession searches upon admission for patients with opioid use disorder, or if they suspected that patients were being supplied with nonprescribed substances by their visitors (Horner et al., 2019). Nurses also involved security services was when there was a concern for personal safety requiring de-escalation (Horner et al., 2019). In that study, nurses acknowledged the potential contribution of stigma towards PWUD in their use of security services. They also identified lack of training and inconsistency in approach as barriers to being able to manage these situations differently (Horner et al., 2019).

These formal and informal policies increase the frequency of interactions between security services and PWUD in hospital. In doing so, they further stigmatize PWUD and reinforce their distrust in the healthcare team (Pollini et al., 2021). In one study, PWUD described negative - sometimes violent - encounters with hospital security and being made to feel "like a criminal" (Simon et al., 2019). Negative interactions with security services, room searches, and personal searches are frequently cited as reasons why PWUD leave hospital prematurely and discontinue

their treatment (McNeil et al., 2014; Pollini et al., 2021; Simon et al., 2019).

Given the potential harms associated with interactions between security services and PWUD, we would urge hospitals to reconsider institutional policies that are likely to increase the frequency of these interactions. Instead, we would encourage hospitals to adapt policies to prioritize the autonomy of PWUD, and only involve security services when there is a serious risk posed to either patients or hospital staff. Healthcare providers should be provided with the additional training, education, and role support on how to navigate challenging encounters regarding nonprescribed drug use and de-escalation (Horner et al., 2019). However, educational initiatives alone will not be sufficient for culture change; institutional policy guidance is needed to establish a consistent approach wherein the safety of both PWUD and healthcare team members are prioritized (Horner et al., 2019).

(6) Use of hospital restrictions

Another practice that is commonly experienced by PWUD while hospitalized is the use of hospital restrictions. These can include being restricted from going outside, being denied off-ward privileges, or requiring accompaniment to leave the ward (i.e. for cigarette breaks) (Roy & Saitz, 2021; Simon et al., 2019). In addition to the restrictions placed on the hospitalized person themselves, PWUD are sometimes prohibited from having visitors due to fears of drugs being brought into hospital by others (Simon et al., 2019).

PWUD have likened hospital restrictions to the experience of being incarcerated or institutionalized (Pollini et al., 2021; Simon et al., 2019). Others have described hospital restrictions as contributing to a feeling of powerlessness, loss of control, or being "trapped" (Pollini et al., 2021; Simon et al., 2019). PWUD have also identified hospital restrictions as a cause of boredom and social isolation (Pollini et al., 2021). Experiencing hospital restrictions can also cause frustration and create conflict between PWUD and their healthcare team, further impairing the establishment of a trusting therapeutic alliance (Pollini et al., 2021).

PWUD have identified hospital restrictions as a contributing factor for patient-initiated discharge (Pollini et al., 2021; Roy & Saitz, 2021; Simon et al., 2019), the harms of which are well-described (Choi et al., 2011; Ti & Ti, 2015). While they are likely attempts to limit opportunities for nonprescribed drug use to take place, there is no evidence that hospital restrictions are effective in doing so.

Hospital policymakers should consider whether there are alternative approaches to managing the risk of nonprescribed substance use that are less likely to increase the risk of treatment interruption and patientinitiated discharge for this patient population, such as the harm reduction approaches discussed above. Implementation of new policy should be paired with a targeted engagement strategy for healthcare providers on how to encourage retention in treatment or reduce nonprescribed drug use among their patients without the use of hospital restrictions, such as those described in earlier sections.

(7) Engaging PWUD in policy development and implementation

As hospitals endeavor to create policy that is responsive to the needs of PWUD, it is essential that the community of PWUD are engaged in the processes of policy development and implementation. The rationale for involving people with lived experience in policy development is based on the ethical premise of "nothing about us without us", affirming that all people should have the right to be involved in decisions affecting their lives (Network, 2006). Informed by their lived experience, PWUD are often better able to identify which interventions may be most effective and how to best engage target populations. Evidence has demonstrated that when PWUD are involved in the development and implementation of services, the uptake and reach of those services within communities of PWUD is greater (Ti, Tzemis, & Buxton, 2012).

In order to ensure the meaningful involvement of PWUD in the policy process, it is suggested that organizations implement the following practices: invite a drug users' group to nominate representatives, if one exists locally; invite more than one representative with lived experience to participate; adapt meeting times and modalities to be accessible; and ensure that people with lived experience are offered training and financial compensation for their participation in any policy development initiatives (Network, 2006).

Conclusion

Systems-level change and adaptation of hospital policy to adopt a harm reduction approach is critical to improving the acute care experiences of PWUD. We urge hospitals to examine their existing policies and identify and amend any policy that may inadvertently stigmatize or adversely impact PWUD seeking care. If institutional policy does not yet exist, the development of new policy should be prioritized in order to eliminate the need for informal, provider-dependent strategies, which create inconsistencies in the care provided to PWUD.

By implementing harm reduction-oriented policies, hospitals have the opportunity to enhance the quality of care offered to PWUD, and may be able to reduce adverse events that incur costs to the healthcare system, such as patient-initiated discharge, treatment interruption, and readmission rates. In doing so, hospitals will be responding to both healthcare provider calls for further guidance and education, as well as the needs of PWUD to feel safe, adequately cared for, and treated with dignity while in hospital. Collaboration among hospital administrators, healthcare providers, people with lived experience, and other stakeholders will be essential for the successful development and implementation of new policies and programs aimed to improve outcomes for PWUD.

Declarations of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

- Angelis, A. R. H., Vucenic, B., Penta, S., Gladysz, H., McCarron, C., Holshausen, K. (2020). Management of Illicit Substances in Hospital: A Review of Policy and Procedure Implementation.
- Artenie, A. A., Jutras-Aswad, D., Roy, E., Zang, G., Bamvita, J. M., Levesque, A., & Bruneau, J. (2015). Visits to primary care physicians among persons who inject drugs at high risk of hepatitis C virus infection: Room for improvement. *Journal of Viral Hepatitis*, 22(10), 792–799. 10.1111/jvh.12393.
- Brooks, H. L., O'Brien, D. C., Salvalaggio, G., Dong, K., & Hyshka, E. (2019). Uptake into a bedside needle and syringe program for acute care inpatients who inject drugs. *Drug Alcohol Review*, 38(4), 423–427. 10.1111/dar.12930.
- Bruneau, J., Ahamad, K., Goyer, M. E., Poulin, G., Selby, P., Fischer, B., & ...on behalf of the CIHR Canadian Research Initiative in Substance Misuse. (2018). Management of opioid use disorders: A national clinical practice guideline. *CMAJ*, 190(9), E247– E257. 10.1503/cmaj.170958.
- Canadian Research Initiative in Substance Misuse (2020a). Guidance Document on the Management of Substance Use in Acute Care. Retrieved from https://crismprairies.ca/ management-of-substance-use-in-acute-care-settings-in-alberta-guidance-document/.
- Canadian Research Initiative in Substance Misuse (2020b). Supporting people who use substances in acute care settings during the COVID-19 pandemic: National rapid guidance. Retrieved from https://crism.ca/wp-content/uploads/ 2021/02/Supporting-people-who-use-substances-in-acute-care-settings-during-the-COVID-19-pandemic-V2-18-Feb-2021.pdf.
- Chan Carusone, S., Guta, A., Robinson, S., Tan, D. H., Cooper, C., O'Leary, B., ..., & Strike, C. (2019). Maybe if I stop the drugs, then maybe they'd care?"-hospital care experiences of people who use drugs. *Harm Reduction Journal*, 16(1), 16. 10.1186/s12954-019-0285-7.
- Choi, M., Kim, H., Qian, H., & Palepu, A. (2011). Readmission rates of patients discharged against medical advice: A matched cohort study. *PLoS One*, 6(9), e24459. 10.1371/journal.pone.0024459.
- Collins, D., Alla, J., Nicolaidis, C., Gregg, J., Gullickson, D. J., Patten, A., & Englander, H. (2019). If It Wasn't for Him, I Wouldn't Have Talked to Them": Qualitative Study of Addiction Peer Mentorship in the Hospital. *Journal of General Internal Medicine*. 10.1007/s11606-019-05311-0.
- Dong, K. A., Brouwer, J., Johnston, C., & Hyshka, E. (2020). Supervised consumption services for acute care hospital patients. CMAJ, 192(18), E476–E479. 10.1503/cmaj.191365.
- Donroe, J. H., Holt, S. R., & Tetrault, J. M. (2016). Caring for patients with opioid use disorder in the hospital. *Canadian Medical Association Journal*, 188(17-18), 1232–1239. 10.1503/cmaj.160290.

- Englander, H., Dobbertin, K., Lind, B. K., Nicolaidis, C., Graven, P., Dorfman, C., & Korthuis, P. T. (2019). Inpatient Addiction Medicine Consultation and Post-Hospital Substance Use Disorder Treatment Engagement: A Propensity-Matched Analysis. *Journal* of General Internal Medicine, 34(12), 2796–2803. 10.1007/s11606-019-05251-9.
- Englander, H., Mahoney, S., Brandt, K., Brown, J., Dorfman, C., Nydahl, A., ..., & Gregg, J. (2019). Tools to Support Hospital-Based Addiction Care: Core Components, Values, and Activities of the Improving Addiction Care Team. *Journal of Addiction Medicine*, 13(2), 85–89. 10.1097/ADM.00000000000487.
- Fanucchi, L., & Lofwall, M. R. (2016). Putting Parity into Practice Integrating Opioid-Use Disorder Treatment into the Hospital Setting. New England Journal of Medicine, 375(9), 811–813. 10.1056/NEJMp1606157.
- Glasgow, J. M., Vaughn-Sarrazin, M., & Kaboli, P. J. (2010). Leaving against medical advice (AMA): Risk of 30-day mortality and hospital readmission. *Journal of General Internal Medicine*, 25(9), 926–929. 10.1007/s11606-010-1371-4.
- Grewal, H. K., Ti, L., Hayashi, K., Dobrer, S., Wood, E., & Kerr, T. (2015). Illicit drug use in acute care settings. *Drug Alcohol Review*, 34(5), 499–502. 10.1111/dar.12270.
- Gunn, A. H., Smothers, Z. P. W., Schramm-Sapyta, N., Freiermuth, C. E., MacEachern, M., & Muzyk, A. J (2018). The Emergency Department as an Opportunity for Naloxone Distribution. Western Journal of Emergency Medicine, 19(6), 1036–1042. 10.5811/westjem.2018.8.38829.
- Horner, G., Daddona, J., Burke, D. J., Cullinane, J., Skeer, M., & Wurcel, A. G. (2019). You're kind of at war with yourself as a nurse": Perspectives of inpatient nurses on treating people who present with a comorbid opioid use disorder. *PLoS One*, 14(10), Article e0224335. 10.1371/journal.pone.0224335.
- Hyshka, E., Morris, H., Anderson-Baron, J., Nixon, L., Dong, K., & Salvalaggio, G. (2019). Patient perspectives on a harm reduction-oriented addiction medicine consultation team implemented in a large acute care hospital. *Drug and Alcohol Dependence, 204*, Article 107523. 10.1016/j.drugalcdep.2019.06.025.
- Jakubowski, A., Pappas, A., Isaacsohn, L., Castillo, F., Masyukova, M., Silvera, R., ..., & Bachhuber, M. A. (2019). Development and evaluation of a pilot overdose education and naloxone distribution program for hospitalized general medical patients. *Substance Abuse*, 40(1), 61–65. 10.1080/08897077.2018.1518836.
- Kendall, C. E., Boucher, L. M., Mark, A. E., Martin, A., Marshall, Z., Boyd, R., ..., & Bayoumi, A. M. (2017). A cohort study examining emergency department visits and hospital admissions among people who use drugs in Ottawa, Canada. *Harm Reduction Journal*, 14(1), 16. 10.1186/s12954-017-0143-4.
- Kennedy, M. C., Milloy, M. J., Markwick, N., McNeil, R., Dong, H., Wood, E., & Kerr, T. (2016). Encounters with private security guards among people who inject drugs in a Canadian setting. *International Journal of Drug Policy*, 28, 124–127. 10.1016/j.drugpo.2015.11.004.
- Kerr, T., Tyndall, M. W., Lai, C., Montaner, J. S. G., & Wood, E (2006). Drug-related overdoses within a medically supervised safer injection facility. *International Journal* of Drug Policy, 17(5), 436–441. 10.1016/j.drugpo.2006.05.008.
- King, C., Collins, D., Patten, A., Nicolaidis, C., & Englander, H. (9000). Trust in Hospital Physicians Among Patients With Substance Use Disorder Referred to an Addiction Consult Service: A Mixed-methods Study. *Journal of Addiction Medicine*, Publish Ahead of Print. 10.1097/adm.00000000000819.
- Kosteniuk, B., Salvalaggio, G., McNeil, R., Brooks, H. L., Dong, K., Twan, S., ..., & Hyshka, E. (2021). You don't have to squirrel away in a staircase": Patient motivations for attending a novel supervised drug consumption service in acute care. *International Journal of Drug Policy*, Article 103275. 10.1016/j.drugpo.2021.103275.
- Lennox, R., Lamarche, L., & O'Shea, T (2021). Peer support workers as a bridge: A qualitative study exploring the role of peer support workers in the care of people who use drugs during and after hospitalization. *Harm Reduction Journal, 18*(1), 19. 10.1186/s12954-021-00467-7.
- MacArthur, G. J., van Velzen, E., Palmateer, N., Kimber, J., Pharris, A., Hope, V., ..., & Hutchinson, S. J. (2014). Interventions to prevent HIV and Hepatitis C in people who inject drugs: A review of reviews to assess evidence of effectiveness. *International Journal of Drug Policy*, 25(1), 34–52. 10.1016/j.drugpo.2013.07.001.
- Markwick, N., McNeil, R., Small, W., & Kerr, T. (2015). Exploring the Public Health Impacts of Private Security Guards on People Who Use Drugs: A Qualitative Study. *Journal of Urban Health*, 92(6), 1117–1130. 10.1007/s11524-015-9992-x.
- Marshall, B. D., Milloy, M. J., Wood, E., Montaner, J. S., & Kerr, T. (2011). Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: A retrospective population-based study. *Lancet*, 377(9775), 1429–1437. 10.1016/s0140-6736(10)62353-7.
- McDonald, R., & Strang, J. (2016). Are take-home naloxone programmes effective? Systematic review utilizing application of the Bradford Hill criteria. Addiction, 111(7), 1177–1187. 10.1111/add.13326.
- McNeil, R., Kerr, T., Pauly, B., Wood, E., & Small, W. (2016). Advancing patient-centered care for structurally vulnerable drug-using populations: A qualitative study of the perspectives of people who use drugs regarding the potential integration of harm reduction interventions into hospitals. Addiction, 111(4), 685-694. 10.1111/add.13214
- McNeil, R., Small, W., Wood, E., & Kerr, T. (2014). Hospitals as a 'risk environment': An ethno-epidemiological study of voluntary and involuntary discharge from hospital against medical advice among people who inject drugs. *Social Science Medicine*, 105, 59–66. 10.1016/j.socscimed.2014.01.010.
- Merrill, J. O., Rhodes, L. A., Deyo, R. A., Marlatt, G. A., & Bradley, K. A. (2002). Mutual mistrust in the medical care of drug users: The keys to the "narc" cabinet. *Journal of General Internal Medicine*, 17(5), 327–333.
- Miskovic, M., Chan Carusone, S., Guta, A., O'Leary, B., dePrinse, K., & Strike, C. (2018). Distribution of Harm Reduction Kits in a Specialty HIV Hospital. *American Journal of Public Health*, 108(10), 1363–1365. 10.2105/AJPH.2018.304600.
- Network, C. H. A. L. (2006). Nothing About Us Without Us": Greater, Meaningful Involvement of People Who Use Illegal Drugs: A Public Health, Ethical,

International Journal of Drug Policy 97 (2021) 103324

and Human Rights Imperative. Retrieved from http://www.hivlegalnetwork.ca/ site/wp-content/uploads/2013/04/Greater+Involvement+-+Bklt+-+Drug+Policy+-+ENG.pdf.

- Palmateer, N., Kimber, J., Hickman, M., Hutchinson, S., Rhodes, T., & Goldberg, D. (2010). Evidence for the effectiveness of sterile injecting equipment provision in preventing hepatitis C and human immunodeficiency virus transmission among injecting drug users: A review of reviews. *Addiction*, 105(5), 844–859. 10.1111/j.1360-0443.2009.02888.x.
- Paquette, C. E., Syvertsen, J. L., & Pollini, R. A. (2018). Stigma at every turn: Health services experiences among people who inject drugs. *International Journal of Drug Policy*, 57, 104–110. 10.1016/j.drugpo.2018.04.004.
- Pollini, R. A., Paquette, C. E., Drvar, T., Marshalek, P., Ang-Rabanes, M., Feinberg, J., & Haut, M. W. (2021). A qualitative assessment of discharge against medical advice among patients hospitalized for injection-related bacterial infections in West Virginia. *International Journal of Drug Policy*, 94, Article 103206. 10.1016/j.drugpo.2021.103206.
- Potier, C., Laprévote, V., Dubois-Arber, F., Cottencin, O., & Rolland, B. (2014). Supervised injection services: What has been demonstrated? A systematic literature review. *Drug Alcohol Dependence*, 145, 48–68. 10.1016/j.drugalcdep.2014.10.012.
- Priest, K. C., Englander, H., & McCarty, D. (2021). Hospital policies for opioid use disorder treatment: A policy content analysis and environmental scan checklist. *General Hospital Psychiatry*, 70, 18–24. 10.1016/j.genhosppsych.2021.02.007.
- Priest, K. C., & McCarty, D. (2019). Role of the Hospital in the 21st Century Opioid Overdose Epidemic: The Addiction Medicine Consult Service. *Journal of Addiction Medicine*, 13(2), 104–112. 10.1097/adm.00000000000496.
- Punches, B. E., Soliman, S., Freiermuth, C. E., Lane, B. H., & Lyons, M. S. (2020). Emergency Nurse Perceptions of Naloxone Distribution in the Emergency Department. *Journal of Emergency Nursing*, 46(5) 675-681.e671. 10.1016/j.jen.2020.05.006.
- Rachlis, B. S., Kerr, T., Montaner, J. S., & Wood, E. (2009). Harm reduction in hospitals: Is it time? Harm Reduction Journal, 6, 19. 10.1186/1477-7517-6-19.
- Rosenthal, E. S., Karchmer, A. W., Theisen-Toupal, J., Castillo, R. A., & Rowley, C. F. (2016). Suboptimal Addiction Interventions for Patients Hospitalized with Injection Drug Use-Associated Infective Endocarditis. *American Journal of Medicine*, 129(5), 481–485. 10.1016/j.anjmed.2015.09.024.

- Roy, P. J., & Saitz, R. (2021). The Cost of a Cigarette: Opportunities to Engage Hospitalized Patients With Opioid Use Disorder. *Journal of Addiction Medicine*, 15(1).
- Sharma, M., Lamba, W., Cauderella, A., Guimond, T. H., & Bayoumi, A. M. (2017). Harm reduction in hospitals. *Harm Reduction Journal*, 14(1), 32. 10.1186/s12954-017-0163-0.
- Simon, R., Snow, R., & Wakeman, S. (2019). Understanding why patients with substance use disorders leave the hospital against medical advice: A qualitative study. *Substance Abuse*, 1–7. 10.1080/08897077.2019.1671942.
- Southern, W. N., Nahvi, S., & Arnsten, J. H. (2012). Increased risk of mortality and readmission among patients discharged against medical advice. *American Journal of Medicine*, 125(6), 594–602. 10.1016/j.amjmed.2011.12.017.
- Strike, C., Robinson, S., Guta, A., Tan, D. H., O'Leary, B., Cooper, C., ..., & Chan Carusone, S. (2020). Illicit drug use while admitted to hospital: Patient and health care provider perspectives. *PLoS One*, 15(3), Article e0229713. 10.1371/journal.pone.0229713.
- Ti, L., & Ti, L. (2015). Leaving the Hospital Against Medical Advice Among People Who Use Illicit Drugs: A Systematic Review. American Journal of Public Health, 105(12), e53–e59. 10.2105/AJPH.2015.302885.
- Ti, L., Tzemis, D., & Buxton, J. A. (2012). Engaging people who use drugs in policy and program development: A review of the literature. Substance Abuse Treatment, Prevention, and Policy, 7(1), 47. 10.1186/1747-597X-7-47.
- Wakeman, S. E., Kane, M., Powell, E., Howard, S., Shaw, C., & Regan, S. (2020). Impact of Inpatient Addiction Consultation on Hospital Readmission. *Journal of General Internal Medicine*. 10.1007/s11606-020-05966-0.
- Wakeman, S. E., Metlay, J. P., Chang, Y., Herman, G. E., & Rigotti, N. A. (2017). Inpatient Addiction Consultation for Hospitalized Patients Increases Post-Discharge Abstinence and Reduces Addiction Severity. *Journal of General Internal Medicine*, 32(8), 909–916. 10.1007/s11606-017-4077-z.
- World Health Organization (2014). Community management of opioid overdose. Retrieved from https://apps.who.int/iris/bitstream/handle/10665/137462/97892415 48816_eng.pdf;jsessionid=2FEB2194340473728350C482E712E8E8?sequence=1.