Received: 26 November 2020 | Revised: 5 February 2021 | Accepted: 25 February 2021

DOI: 10.1002/emp2.12409

JACEP OPEN
JOURNAL OF THE AMERICAN COLLEGE OF EMERGENCY PHYSICIANS OPEN
A GLOBAL JOURNAL OF EMERGENCY MEDICINE
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ORIGINAL RESEARCH

General Medicine

Emergency physician perspectives on initiating buprenorphine/naloxone in the emergency department: A qualitative study

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Funding and support: This work was funded by a grant from the Canadian Institutes of Health Research via the Canadian Research Initiative in Substance Misuse. Research infrastructure support was also provided by the Royal Alexandra Hospital Foundation. CJX received a summer studentship award from the Emergency Strategic Clinical Network, Alberta Health Services.

Abstract

Objectives: The objective of this study was to examine the perspectives of Canadian emergency physicians on the care of patients with opioid use disorders in the emergency department (ED), in particular the real-world facilitators to prescribing buprenorphine/naloxone (BUP) in the ED.

Methods: We conducted semistructured qualitative interviews using a multi-site–focused ethnographic design. Purposive sampling via an existing national research network was used to recruit ED physicians. Interviews were conducted by phone using an interview guide and continued until theoretical data saturation was reached. Interviews were transcribed and analyzed using latent content analysis. Interviews took place between June 21, 2019, and February 11, 2020.

Results: A total of 32 physicians were included in the analysis. Participants had a median of 10 years of experience, and most (29/32) worked in urban settings. Clinical care of patients with opioid use disorder was found to be variable and physician dependent. Although some physicians reported routinely prescribing BUP, others felt that this was outside the clinical scope of emergency medicine. Access to clinical pathways,

Supervising Editor: Karl A. Sporer, MD.

incentivized training, dedicated human resources, and follow-up care were identified as critical facilitators for supporting BUP prescribing. Participants also identified a shared responsibility between patients and the ED, including the importance of a patient-centered approach that enhanced patient autonomy. ED BUP prescribing became self-reinforcing over time.

Conclusions: Although there remains practice variability among Canadian emergency physicians, successful implementation of ED BUP prescribing has occurred in some locations. Jurisdictions wanting to facilitate BUP uptake should consider providing incentivized training, treatment protocols, dedicated human resources, and streamlined access to follow-up care.

1 | INTRODUCTION

1.1 | Background

Deaths related to opioids are of critical concern in both Canada and the United States.[1,2] For many patients with opioid use disorder (OUD), the emergency department (ED) is often their sole or primary point of contact with the healthcare system[3–5] and represents a key access point to OUD treatment.[6] The latest available data indicate that between 2016 and 2017, the rates of opioid poisoning ED visits in Ontario and Alberta increased by 73% and 23%, respectively.[7] Of note, opioid-related harms have increased during the COVID-19 pandemic with several Canadian provinces reporting a record number of apparent opioid-related deaths.[8,9]

Buprenorphine/naloxone (BUP) is recommended as a first-line treatment for OUD,[10–12] and the initiation of BUP should be considered for all patients with untreated OUD presenting to the ED.[13] Other forms of opioid agonist treatment (OAT), such as methadone and slow-release oral morphine, are typically subject to more regulatory requirements and have a higher risk of adverse events. BUP reduces mortality and illegal opioid use and is cost-effective.[10,14,15] Patients who start BUP in the ED are more likely to be retained in OUD treatment than those who receive an outpatient referral alone or in combination with a brief intervention.[12] A systematic review of ED-initiated interventions for patients with OUD found that OAT initiation, including BUP, was the most promising ED intervention; however, further research and efforts to reduce implementation barriers were recommended.[16]

1.2 | Importance

Currently, there is no consensus among ED clinicians on the acceptability and feasibility of BUP initiation. Physicians view the opioid overdose epidemic as a serious concern and feel they have a duty to treat people with substance use disorders.[11,17] Qualitative studies of ED clinicians working in US academic hospitals, however, report that some physicians feel BUP initiation is outside the scope of emergency medicine.[18,19] This perceived incompatibility may stem in part from a lack of exposure to addiction medicine and OAT during clinicians' training years.[20] In a recent survey of Canadian physicians, although 79.9% treated patients with OUD more than once per week, only 7% of respondents always/often offered BUP in the ED.[21]

In contrast to the United States, once Canadian physicians have completed the required training (if any) as outlined by their provincial or territorial regulatory body, there is no maximum number of patients that can be prescribed BUP per physician. In addition, most provinces only require completion of an online course, and several provinces have instituted phone consultation lines to assist with the management of complex patients.[22] In Canada, BUP treatment also is publicly funded through drug plans for both low-income populations and some Indigenous peoples.

Barriers to BUP initiation are well documented, particularly those perceived by US clinicians who have little to no experience with BUP;[18,19] however, there is relatively little research that has examined the perceived facilitators of BUP initiation among emergency physicians with a range of experiences administering the treatment in the ED. Clinicians' attitudes regarding BUP initiation have been reported to shift favorably with experience as a prescriber.[11,23,24] As such, active prescribers may contribute a unique and important perspective.

1.3 | Goals of this investigation

The goal of this study was to examine the perspectives of Canadian emergency physicians on ED-initiated BUP in a sample of physicians with a range of experience in BUP prescribing and available resources. Specifically, this study aimed to understand emergency physician experiences caring for people with OUD and to describe facilitators to prescribing BUP in the ED setting.

2 | METHODS

2.1 | Study design and setting

We conducted semistructured interviews using a multi-site–focused ethnographic design to capture the perspectives of Canadian emergency physicians on initiating BUP in the ED. Focused ethnography is a

targeted, time-limited, and problem-focused form of ethnography used to understand specific social phenomena occurring within a predefined context that has distinct patterns of norms and behaviors.[25] This qualitative method is useful to identify shared practices and beliefs within a specific subgroup of individuals and is well suited to explore clinician perspectives in healthcare research.[26] In Canada, EDs are publicly funded, and there is a single-payer system for emergency physician compensation. There are no additional financial incentives for BUP prescribing, and the majority of Canadians qualify for prescription drug plans that cover BUP cost, although some patients may be required to apply for coverage at the time of treatment initiation or pay a copay out of pocket.

The present study is embedded within a larger research project led by the Canadian Research Initiative in Substance Misuse (CRISM) ED Buprenorphine Working Group, which also includes a systematic literature review on ED interventions for patients with OUD,[16] a quantitative survey of emergency physicians on BUP initiation, and a survey of patients with opioid use who have accessed the ED. The present study protocol was reviewed and approved by the University of Alberta Health Research Ethics Board (file no. Pro00090060) before study commencement.

The Bottom Line

This is a qualitative study of Canadian emergency physicians on the initiation of buprenorphine in the emergency department. They describe significant variability in its use and the need for standardized treatment protocols, incentives for training, streamlined outpatient access, and dedicated specially trained staff.

2.2 | Selection of participants

We used purposive sampling techniques to recruit emergency physicians. First, we leveraged the CRISM ED Buprenorphine Working Group national network of ED-site research leads established for the related national quantitative survey of emergency physicians to recruit participants. Site leads selected by the working group were asked to email a description of the study and recruitment materials to emergency physicians at their respective sites, inviting them to participate in a 1-hour phone interview (Appendix 1). Interested emergency physicians contacted a research coordinator (A.P. or K.J.L.)—who had no prior or ongoing affiliation or connection to potential participants—to schedule an interview. In addition, we used snowball sampling to supplement recruitment by asking participants to share the study recruitment materials with other ED physician colleagues. Purposive sampling is common practice in qualitative inquiry, and focused ethnography as the goal is to recruit a full spectrum of key informants who can provide detailed information on a topic rather than to obtain a representative sample.[27] We set out to recruit ≈30 participants or the number required to achieve theoretical data saturation, the point at which no new information or themes tend to emerge in the data.[28]

Physicians were eligible to participate if they (1) had completed their residency training, (2) had at least 1 year of experience working in an ED, and (3) were actively working in an ED in Canada for an average of at least 4 shifts per month.

2.3 | Data collection

We developed a semistructured interview guide (Appendix 2) to elicit emergency physician perspectives on caring for patients with OUD, the initiation of BUP, and other related interventions in the ED. The interview guide was based on prior field-tested interview guides used by team members to assess hospital clinician perspectives on various substance use interventions and informed by the authors' expertise in emergency and addiction medicine. Specific probing questions were added to clarify emerging areas of interest. All study materials were available in both English and French, and participants had the option to complete the interview in either language. Interviews were conducted by a team of 4 female health services researchers, including 2 research coordinators (A.P. and K.J.L.) and 2 graduate research assistants (C.J.X. and S.M.W.). Consistency between interviewers was ensured by providing an orientation to BUP initiation and training in qualitative inquiry using focused ethnography, as well as practice with the interview guide. Interviewers C.J.X., K.J.L., and S.M.W. also reviewed the transcripts and audio recordings of previous interviews and shadowed more experienced interviewers before starting independent data collection.

One-on-one interviews were conducted via the phone and audio recorded. Participants were given a study information sheet to review before participation and provided verbal informed consent via the phone (audio recorded) before commencing the interview. Researchers used the interview guide to ask lead-off questions, then probed for clarifications and asked follow-up questions during each interview as needed. All participants were offered a $50 honorarium in consideration for their time. After each interview, the interviewers recorded field notes summarizing their overall impressions of the interview as well as key perspectives and preliminary interpretations to be further explored in subsequent interviews. Interviews were continued until theoretical data saturation was achieved. Although we obtained informed consent to recontact participants if needed, initial data collection was of satisfactory quality in all cases, and we did not need to repeat any interviews nor return transcripts to participants for comment or correction.

2.4 | Analysis

Before analysis, interview audio recordings were transcribed verbatim by a professional third-party transcription service, translated into English (for those completed in French), and then transcripts were checked for accuracy by 1 of the interviewers. We removed potentially

identifiable participant information from the transcripts and replaced it with generic descriptions of redacted content.

We organized and analyzed the de-identified transcripts using inductive latent content analysis using NVivo 12.[29] Analysis began with data immersion.[30] First, the primary coder (K.J.L.) reviewed all the transcripts, audio recordings, and field notes and recorded initial thoughts and impressions about the data; 3 secondary coders (A.P., C.J.X., and S.M.W.) reviewed a subset of transcripts and noted their own impressions. Before coding transcripts, all coders shared their initial impressions of the data with each other, and K.J.L. and S.M.W. developed a coding strategy. Codes were labeled according to the topic (ie, general patient care, BUP initiation, and harm reduction) and concept described by the participant (eg, harm reduction—barrier—lack of harm reduction training); corresponding codes were developed to identify and explore cases where respondents' viewpoints differed from the majority (negative cases). Next, K.J.L. identified and coded relevant concepts discussed by participants in all transcripts using an open line-by-line coding technique. [27] In developing and refining the coding tree, K.J.L. and S.M.W. met to discuss codes and emerging themes after K.J.L. had coded ≈35%, 70%, and 100% of transcripts, and codes were revised, expanded, or collapsed accordingly using a consensus approach. To assess the dependability or reliability of the results, S.M.W., the secondary coder reviewed a random subset of 6 transcripts for coherence, consistency, and comprehensiveness in the applied codes. In addition, another researcher (C.J.X.) reviewed the references contained within each code to confirm they were internally consistent and coherent with their overarching category and theme. Themes were developed by K.J.L. in collaboration with C.J.X., E.H., K.A.D., and S.M.W.; the researchers met several times during the course of the analysis to review the analytical process and discuss emerging themes and negative cases. Throughout the analysis, coders considered the potential role of participant-reported demographic characteristics (ie, gender, age, experience, ED setting, and ED visits) and other attributes abstracted from the data (ie, participant access to addiction human resources and BUP initiation protocols via their respective EDs as well as participant training and experience initiating BUP) to further qualify the findings. Participants did not provide feedback on the themes. The final coding tree is included for review (Table 1 and Appendix 3).

It is important to note the sociopolitical context that shaped the research process.[31] The study was funded by CRISM and designed by the CRISM ED Burprenorphine Working Group as part of a larger effort to expand access to BUP in Canadian EDs. Furthermore, all the researchers who conducted interviews and participated in the analytical process are embedded within the Inner City Health and Wellness Program (ICHWP; Edmonton, Alberta). The ICHWP is actively engaged in studying, advocating for, and educating clinicians about evidence-based substance use interventions (including BUP).

3 | RESULTS

A total of 33 emergency physicians participated in the study; however, after providing consent it became apparent that 1 participant had not completed residency (ie, did not meet the inclusion criteria) and was excluded from the analysis. All interviews were completed in full. Characteristics of the 32 participants retained for analysis are shown in Table 2. Interviews were conducted between June 21, 2019, and February 11, 2020. A total of 2 interviews were conducted in French (K.J.L.) and 30 were conducted in English (A.P. [1], C.J.X. [12], K.J.L. [14], and S.M.W. [3]). Interviews ranged from 36 to 75 minutes in duration (median 56 minutes).

Three key themes related to BUP initiation in the ED emerged from the analysis. The first theme was that ED care for patients with OUD, including BUP initiation or referral, was highly variable and physician dependent. Participants noted observing interphysician variation in the care of patients who used opioids, including which treatments the physicians were willing and able to offer. Some emergency physicians were unwilling to treat patients with BUP as they perceived this to be outside the scope of emergency medicine: "I don't think that what I'm doing [initiating BUP treatment] should be done out of the ED. It's just so, it's just quite, it's not a place to be providing chronic care" (participant 18). Without robust BUP initiation protocols, some physicians viewed the process as complex and cumbersome, which contributed to the perception that BUP induction was incompatible with ED care. ED physicians willing to initiate BUP were more likely to feel that the ED had a responsibility to offer BUP treatment and to identify with a harm-reduction approach to care; these physicians tended to have OAT training and experience and/or access to addiction medicine resources or BUP protocols. As 1 participant remarked,

I think this is our job, prescribing [BUP]. Because we know, it's proven to reduce mortality and all the other positive outcomes when we can get ED patients on this. I would just like my colleagues to understand that the same way, that they understand that this treatment is necessary. (participant 32)

In contrast to other participants, 1 physician voiced their opposition to home initiation of BUP via the ED, remarking,

"I don't even trust them to fill and use an antibiotic correctly, right? Because you know, these are patients with a history of overdose, history of criminality, history of diversion, you know they're not stable patients who you can give a prescription to and expect them to use it in any kind of responsible way." (participant 16)

Study participants thought that interphysician variability in motivation and ability to initiate BUP in the ED could be minimized by providing basic OAT training via accredited programs tailored specifically for emergency physicians. One participant explained:

"I wish there was something that was perhaps a little bit shorter, or 1 specifically geared to emergency physicians.… Honestly, I think if there was an online course that was an emerg physician specific and was a 6-hour course, I don't know a 4-hour course, whatever it might be, I think the uptake would be much greater." (participant 12)

Another participant suggested that providing incentivized training options was key to overcoming the barriers perceived by physicians: "I was funded to do that [accredited OAT training program], and honestly I think if I wasn't, I may not have done it" (participant 11). Others advocated for integrating OAT and addiction medicine training modules into emergency medicine training programs. In describing the impact

TABLE 1 Coding tree for the qualitative inductive content analysis of the perceived barriers and facilitators of buprenorphine/naloxone initiation and uptake in the emergency department

Theme	Subtheme	Code	Coverage (number of participants)
1. Practice variance	1.1. Problem/context	Practice variance	18
	1.2. Physician reluctance		
	1.2.1. Unwillingness to treat	Lack motivation to train and treat	12
		Perceived ED incompatibility	15
		Concerns of misuse and diversion	6
		Stigma toward patients with OUD	8
	1.2.2. Limited ability to treat	Regulatory College requirements	3
		Difficult medication access	8
		Lack experience	24
		Lack OAT training (generalists)	21
	1.3. Physician uptake		
	1.3.1. Willingness to treat	Harm reduction philosophy	20
		Low concerns of misuse and diversion	21
		Motivation to train and treat	16
		Perceived ED responsibility	16
		Proactive approach	18
	1.3.2. Ability to treat	No Regulatory College requirements	5
		Experience	20
		Formal OAT training	23
		Reliable access to medication	9
2. Care standardization	2.1. Problem/Context	Supportive ED infrastructure	18
		Team (consensus) approach	17
	2.2. Physician supports		
	2.2.1. Problem/Context	Lack adequate protocols	12
		Limited human resources (to support treatment)	13
		Unreliable follow-up care	14
	2.2.2. Follow-up care	Integrated addiction clinics	6
		Integrated follow-up care pathways	15
		Timely access to OAT prescribers (for follow-up)	17
		Transitional care	22
	2.2.3. Standardized processes	OAT education (via ED)	15
		Standardized induction protocols	26
		Routine OUD screening	19
	2.2.4. Human resources	Experienced staff (to support treatment)	16
		Mentors	17
	2.3. Offload burden		
	2.3.1. Problem/Context	Limited ED resources	23
		Treat straightforward cases, offload others	21
		Treatment is resource intensive	21
	2.3.2. ED resources	Addiction medicine services	17
		Addiction support services	14
		Adapt ED space and resources	10

(Continues)

TABLE 1 (Continued)

Theme	Subtheme	Code	Coverage (number of participants)
	2.3.3. ED diversion	Divert to outpatient resources	20
		Take-home BUP	22
3. Patient onus	3.1. Problem/Context	Difficulty engaging patients in care	11
		Non-systematic OUD screening	16
		Patient inability to engage and comply	13
		Patient negative perceptions of treatment	15
		Patient unwillingness to engage and comply	16
	3.2. Self-disclosure paradox	Physician clinical gestalt (to identify high-risk patients)	23
		Physician discussion of opioid use	13
		Physician resistance to systematic screening	12
		Patient self-disclosure	16
		Stigma conundrum (patient identification)	6
	3.3. Patient engagement	Establish good rapport	12
		Minimize patient discomfort	17
		Patient ability to engage and comply	10
		Patient willingness to engage and comply	18
		Provide treatment counseling	23
		Support patient autonomy	11
	General physician attitudes		
		Treatment is appropriate for ED	25
		Treatment is safe and effective	23
		Treatment uptake is increasing	16

BUP, buprenorphine/naloxone; ED, emergency department; OAT, opioid agonist treatment; OUD, opioid use disorder.

of integrating addiction medicine lectures into an accredited emergency training program, 1 participant said, "It's making a big difference. What's happening especially around the addiction training we're finding is that [residents] are coming through the process really wanting to get some exposure.… They really want to understand it and I think the de-stigmatization happens fairly early in the training" (participant 17). Participants also noted that prescribing BUP became self-reinforcing: "They [physicians] get positively reinforced when the [BUP] starts to go well. So, that's another thing that's just going to change with critical numbers of patients treated" (participant 6).

The second key theme that emerged was around ensuring adequate ED resources for standardization of care. Participants noted that reliable access to adequate addiction resources may simplify treatment initiation, standardize ED care, and reduce the burden on emergency physician time and ED resources. The most important perceived facilitators of effective ED-based BUP initiation were access to (1) BUP induction protocols and clinical guidelines, (2) human resources (eg, addiction medicine clinicians), and (3) dependable transitions to follow-up care (eg, rapid access addiction medicine clinics, integrated follow-up care pathways). In fact, emergency physicians with OAT training and experience working in high-throughput EDs with access to these resources in the ED were satisfied that new or existing addiction resources had improved their ability to initiate BUP treatment effectively in the ED and had encouraged emergency physician uptake. One such physician remarked,

I don't think there's actually any barriers for us now providing [BUP]. Now that we're familiar with it. Now that the dispensing is easy.… We have a system, so actually, where I work there's almost no barriers. The barriers are super minimal. (participant 9)

BUP induction protocols and clinical guidelines seem particularly important to have in place because, in addition to standardizing care, they minimize physician concerns over precipitated withdrawal. For example, 1 participant with access to a BUP induction protocol explained that "Now that we've kind of have a plan I think it [precipitated withdrawal] seems like less of a risk" (participant 13). However, other participants emphasized that protocols must be sufficiently flexible to allow for tailored dosing, home initiation, and bridging to follow-up care. As 1 participant reported:

We've had to design [our BUP induction protocol] to be fairly conservative just to get it past our physician college so most patients are underdosed on the first day.… I'd really like to be able to do take-home doses of [BUP] which we're also not able to do. The college doesn't want the ED physicians to do that…our scoring tool requires the [Clinical Opioid Withdrawal Scale] score >12, which means they need to be

TABLE 2 Descriptive statistics of self-reported demographic variables (N = 32)

Characteristic	Number
Sex	
Female	13
Male	19
Age group	
20–29 years	1
30–39 years	16
40–49 years	9
50–59 years	4
60–69 years	2
Province	
Alberta	4
British Columbia	12
New Brunswick	1
Nova Scotia	4
Ontario	7
Québec	2
Saskatchewan	2
Experience (years)	
Median	10
Minimum	1
Maximum	33
Postgraduate Training (years)	
Median	3
Minimum	2
Maximum	9
ED setting	
Rural	3
Urban	29
ED visits (per year, self-reported)[a]	
Median	76,500
Minimum	18,000
Maximum	200,000
Have initiated BUP at least once in the ED	
Yes	23
No	8
Unclear	1

Observed frequencies for categorical variables and medians and ranges for continuous variables are provided. BUP, buprenorphine/naloxone; ED, emergency department.

[a]Based on n = 26, 6 participants did not report this information.

you know, in reasonable withdrawal, which is a barrier for a lot of our patients who come in fairly early and we have to tell them to go away and come back later. (participant 14)

Although BUP protocols are important to support emergency physicians performing straightforward initiations, emergency physicians contemplating more complicated initiations or working in busier EDs may require additional assistance. Participants described how addiction physician consult services or emergency physicians with crossover addiction medicine training can provide expert advice and education to ED colleagues with less training and experience or even offload BUP initiations from busy emergency physicians. In describing the addiction consult service in their ED, 1 physician said,

If I have questions regarding how best to help a patient from an opioid agonist therapy perspective or just from a general resource perspective, I can talk to them 24 hours a day, they're available to discuss cases. And certainly, if I'm contemplating a [BUP] initiation that I think may be challenging…we're able to discuss having them help with the initiation. (participant 12)

Some participants indicated that it is also helpful to have experienced ED staff or specialized allied health professionals (eg, nurses, social workers, counselors) for offloading time-consuming ancillary processes, including treatment counseling, monitoring, and linkage to follow-up care. When asked about the ideal resources to have in place to support BUP initiations in the ED, 1 participant suggested,

Having a dedicated addictions nurse…someone who's in a funded position to specifically cater to the needs of our population who's coming in with substance use, and be able to do screening, counseling, all the follow-up stuff, all of that. Because it's just not feasible for an emerg doctor who's busy you know, there's 40 people in the waiting room. (participant 4)

For BUP initiation to occur successfully in the ED, emergency physicians need dependable transitions to follow-up care, which can be achieved by having low barrier access to a network of OAT clinics, community prescribers, and other outpatient resources. When asked about follow-up care pathways from their ED, 1 physician working in a busy inner-city ED said,

Well, [addiction consult service] makes it super easy so, we have an [addiction consult service] clinic [in the hospital] we can usually hook people up with the next day…there's also several other opioid clinics in town that we've had relationships with and we can fax them a quick referral and let them know a patient's coming and they have drop-in times to accept those patients. (participant 26)

In smaller communities with more restricted access to OAT clinics, some EDs have adapted their protocols to provide follow-up care via community partnerships. One physician working in a rural ED reported that.

"What ends up happening to us especially on weekends because our opioid recovery program is not open on the weekends or on holidays, so we will actually bring patients back to the emergency room to get their daily dosing.… If I can work closely with the pharmacist on the weekend, sometimes we can do the titration up." (participant 17)

Streamlined access to follow-up care from the ED was identified as a major facilitator to successful implementation of BUP protocols.

The third key theme revolved around the joint responsibilities of the patient and the ED in facilitating care. Most EDs do not routinely screen all patients for OUD, thus emergency physicians rely on their clinical "gestalt" and direct questioning of select patients about their opioid use to identify patients eligible for BUP treatment. Ultimately,

however, identification relies on patient self-disclosure, which is complicated by stigma. The paradox of implementing more pervasive substance use screening in the ED and the stigma related to patient self-disclosure was highlighted by this participant who said,

Coming in because their finger was cut, you know what I mean, and now they're getting bombarded with like these questions without any context, like I think, I think people would feel even more stigmatized, just you know what I mean, like if they presented in a certain way where they look like they could be a drug user…I think it isn't really that helpful nor, I think, would people be very truthful. (participant 28)

A common sentiment among participants was that routine systematic screening should not be taking place in the ED and that patients and clinicians had a shared case finding responsibility to identify when BUP might be indicated.

Other participants highlighted the fact that patient self-disclosure and treatment acceptance could be encouraged by using patient engagement strategies that focus on establishing good rapport, minimizing patient discomfort (eg, management of withdrawal symptoms), supporting patient autonomy, and providing adequate information about treatment options. These strategies were discussed more commonly by emergency physicians who had additional OAT training, experience, and access to addiction medicine support in the ED. As one physician noted,

"But I think we also do a lot of good by just identifying people and validating them, and not making them feel like they're bad people, and opening the door and saying "there's these services available if you feel like you wanted to talk more about different opioid agonist treatments" or whatever, we can say there's this [addiction medicine] clinic. So even having that available for people, I think it's helpful even if we can't maybe launch into as extensive a conversation as they might be able to do in an outpatient setting." (participant 4)

One particularly promising means of improving the patient experience in the ED and encouraging patient engagement in treatment is to prescribe BUP for home initiation. Asone physician put it,

"I think it [prescribing BUP for home initiation] would be great 'cause then they could do it on their own terms. They can wait out their withdrawal in a bit more of a comfortable environment, potentially. And they can wait till a time when they're ready. 'Cause the day that I see them, they may not be quite ready." (participant 8)

4 | DISCUSSION

The goal of this study was to examine the perspectives of Canadian emergency physicians on caring for people with OUD to identify the facilitators to prescribing BUP in the ED setting. Our research indicates that several key facilitators, such as treatment protocols, dedicated human resources, and joint system and patient engagement, were required for successful BUP initiation in the ED environment.

Addiction medicine is a relatively new field, and generalist physicians have only just begun integrating the fundamentals of addiction medicine, including OAT prescribing, into training programs.[32,33] Lack of knowledge, training, and expertise are often cited as barriers to BUP prescribing by clinicians.[11,19] Previous work has demonstrated a low level of readiness to prescribe BUP to ED patients in both US and Canadian settings.[18,19,21] Among other things, clinicians have called for improved access to incentivized OAT training programs[6,34] and dedicated human resources such as adequately trained staff and access to integrated community addiction resources.[20,35,36] Standardized protocols and care pathways have also been identified as a means to facilitate practice change.[18,19] For example, after the implementation of systematic screening procedures in 4 community EDs in Ontario, Canada, 88% of patients presenting to the ED with OUD were offered and consented to BUP initiation and referral to outpatient addictions follow-up.[37]

Within the ED, standardized protocols for initiating treatment and managing potential complications (eg, precipitated withdrawal) were regarded by participants as the most important resource to have in place. This is consistent with the findings of Hawk et al, who noted that "the importance of protocols cannot be overstated."[19] In addition, access to streamlined and timely follow-up care in the community was cited as a critical facilitator. Incentivized training designed specifically for emergency physicians was also identified as a key way to improve uptake. As noted in our study and the study by Hawk et al, there also exists an opportunity for "teaching up," whereby new knowledge is imparted to established clinicians by medical students, residents, and recent graduates through embedding teaching about BUP initiation in undergraduate and postgraduate medical curricula.[19]

Another major facilitator for ED initiation of BUP was access to human resources. Having experienced ED staff or specialized team members (eg, nurses, social workers) as well as access to physicians with experience in addiction medicine facilitated BUP prescribing. This was also identified as a key solution to improving BUP access in the ED by Im et al.[18] In EDs where dedicated addiction services are not available or their implementation is considered neither feasible nor justified, partnerships with OAT clinics, pharmacists, and prescribers in the community (eg, via phone consult lines) may provide opportunities for physician mentorship as well as facilitate access to follow-up care thus improving rates of ED BUP initiation. Another possible facilitator noted by both Hawk et al and Im et al was feedback to clinicians about patient success stories from those who had been initiated on BUP in the ED; as our participants noted, the positive responses from patients in the ED became self-reinforcing as more comfort with BUP developed over time.[18,19]

Once treatment protocols, physician training, follow-up pathways, and other supports have been implemented, emergency physicians report that joint patient and ED system engagement becomes the limiting factor in treatment uptake. This is complicated by the stigma that remains pervasive, particularly around illegal drug use. Emergency physicians with experience in BUP prescribing reported that using patient engagement techniques, managing withdrawal symptoms in the ED, and enhancing patient autonomy were critical for successful BUP initiation in the ED. One strategy to enhance uptake and provide autonomy may be to implement take-home BUP programs in the ED. Prescribing BUP for home initiation has the potential to (1) minimize patient discomfort in ED because patients are not made to wait in

chaotic EDs and are not in withdrawal during the ED encounter, (2) support patient autonomy because patients are given the freedom to initiate the treatment on their own terms, and (3) build better rapport because prescribing for home initiation requires that the emergency physician trust the patient to initiate treatment as discussed. However, the caveat is that home initiation requires extensive treatment counseling to avoid problems of precipitated withdrawal, a problem that could be overcome by delegating treatment counseling onto experienced support staff or specialized addiction human resources and by providing patients with easy-to-read and patient codesigned preprinted information and instructions. Home BUP initiation was also identified by Im et al as a potential way to improve patient and clinician uptake.[18]

5 | LIMITATIONS

This study was conducted in Canada, which has a universal healthcare system. The cost of BUP is covered for most Canadians under employer or provincial drug benefit plans as well as via the non-insured health benefits program for First Nations and Inuit Canadians, although some patients may need to apply for medication coverage if not yet in place. Other jurisdictions with more restrictive healthcare access and medication coverage may find different barriers and facilitators to initiating BUP in the ED. This study also has limitations inherent to other qualitative research such as response bias, whereby the participants may have reported perceptions that were influenced by the presence of the interviewer, or social desirability bias. Participants were recruited via an existing network consisting of EDs who had already indicated a willingness to participate in related research, and thus these results may not reflect all Canadian EDs or regions. Physicians self-selected to participate, which may have resulted in a selection bias. Snowball sampling techniques may have resulted in a subset of physicians within each group participating. However, in the context of our qualitative inquiry, this representativeness would not compromise the validity of the findings. Of the participants, 50% (16/32) were in the 30–39 year age range, which is a larger proportion than our related work with a similar population where 39% of the participants were in this age range. Participants in both younger and older age groups reported a range of experiences with buprenorphine initiation. The perspectives of patients and other ED team members (eg, nurses, social workers, peer workers) were not included. We attempted to mitigate these limitations by ensuring all physician investigators were blinded to identifiable interviews and transcripts and by encouraging site leads and other participants to reach out to physicians with a diverse range of perspectives on this topic.

In summary, although there remains variability among Canadian emergency physicians on the role of BUP in the ED, successful implementation of ED BUP prescribing has occurred across the country and remains a key response to ongoing opioid-related deaths across North America. Key facilitators include standardized treatment protocols, incentivized training, access to dedicated and adequately trained ED staff, streamlined access to follow-up care in the community, and the ability of patients and ED to share the responsibility of engaging into care.

ACKNOWLEDGMENTS

We thank Kelsey Speed, Brynn Kosteniuk, Hannah L. Brooks, Klaudia Dmitrienko, and the rest of the Inner City Health and Wellness research team for providing support and guidance in qualitative data analysis and manuscript preparation.

CONFLICTS OF INTEREST

K.A.D. receives a medical leadership salary from Alberta Health Services as Medical Director for the Inner City Health and Wellness Program and has received committee honoraria from the College of Physicians and Surgeons of Alberta. K.J.L., G.S., S.M.W., C.J.X., A.K., J.K., A.M.O., and A.P. have no conflicts of interest to declare. E.H.'s faculty receives salary support for her position from the Royal Alexandra Hospital Foundation and Alberta Health Services.

AUTHOR CONTRIBUTIONS

Kathryn A. Dong, Janusz Kaczorowski, Andrew Kestler, and Aaron M. Orkin conceived the study and obtained research funding. Kathryn A. Dong, Janusz Kaczorowski, Andrew Kestler, Aaron M. Orkin, Ginetta Salvalaggio, Elaine Hyshka, and Cindy Jiaxin Xue designed the study. Kathryn A. Dong, Andrew Kestler, Janusz Kaczorowski, and Aaron M. Orkin undertook recruitment of participating centers and physicians. Elaine Hyshka, Ginetta Salvalaggio, Karine J. Lavergne, Arlanna Pugh, Savannah M. Weber, and Cindy Jiaxin Xue managed the data, including quality control. Arlanna Pugh, Cindy Jiaxin Xue, Karine J. Lavergne, and Savannah M. Weber interviewed study participants and collected the data. Elaine Hyshka, Ginetta Salvalaggio, Karine J. Lavergne, Arlanna Pugh, Savannah M. Weber, and Cindy Jiaxin Xue provided qualitative research expertise and analyzed the data. Kathryn A. Dong, Karine J. Lavergne, and Savannah M. Weber drafted the manuscript, and all authors contributed substantially to the revision. Kathryn A. Dong takes responsibility for the paper as a whole.

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How to cite this article: Dong KA, Lavergne KJ, Salvalaggio G, et al. Emergency physician perspectives on initiating buprenorphine/naloxone in the emergency department: A qualitative study. *JACEP Open*. 2021;2:e12409. https://doi.org/10.1002/emp2.12409

APPENDIX 1: RECRUITMENT MATERIALS

Recruitment Email—ED Physicians

Dear Emergency Physician,

Emergency department (ED) visits related to opioid use have dramatically risen since the introduction of synthetic opioids into the illegal drug market. To better understand perspectives surrounding ED-initiated buprenorphine for people with opioid use disorders, Dr. Kathryn Dong (principal investigator) and her colleagues are conducting a qualitative study titled "Emergency Department Physician Attitudes Towards Buprenorphine Initiation in the ED."

As a practicing emergency physician in Canada, you are invited to participate in our study and share your perspective on this very important topic. Interview content will include:

- Caring for patients with opioid use disorders in the ED
- Initiating buprenorphine/naloxone in the ED
- Providing other interventions for patients with opioid use disorders in the ED

Since we seek a diverse array of perspectives, interviews are taking place across the country in both urban and rural settings. If interested, we would greatly appreciate hearing and documenting your perspective on this topic. The interview will take approximately 1 hour and will be conducted by telephone on a day and time of your convenience. As a measure of appreciation for your time, you will receive a $50 Starbucks gift card for your participation.

If you are interested in taking part in our study or if you have any questions, comments, or concerns, please contact Karine Lavergne (Research Coordinator) by email or phone for more information. Your site lead, the individual who identified you as a potential participant, has not shared any identifying information with the study team.

Thank you for your consideration of our research project.

All the best,

[Site Lead]

Dr. Kathryn Dong

Principal Investigator

kathryni@ualberta.ca | 780-613-5022

Karine Lavergne

Research Coordinator

klavergn@ualberta.ca | 780-613-5043

Information Letter

WHO IS CONDUCTING THIS STUDY?

This study is being conducted by researchers from the University of Alberta and Canadian Research Initiative on Substance Misuse (CRISM). Researchers from the University of Toronto (UofT), University of British Columbia (UBC), and University of Montreal (UdeM) are also collaborators on this project.

Principal Investigator: Dr. Kathryn Dong

Department of Emergency Medicine, University of Alberta

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Research Coordinator: Karine Lavergne

School of Public Health, University of Alberta

klavergn@ualberta.ca | 780-613-5043

WHO IS FUNDING THIS STUDY?

This study is being funded by the Canadian Institutes of Health Research (CIHR) via a Canadian Research Initiative in Substance Misuse (CRISM) grant at the Centre Hospitalier de L'Université de Montréal (CHUM).

WHY ARE WE DOING THIS STUDY?

You are being invited to participate in this study because you are a physician working in an emergency department (ED) in Canada. We are doing this study to gather ED physicians' perspectives and attitudes towards starting buprenorphine treatment for patients with an opioid use disorder who present to the ED. We are aiming to recruit a total of 30 ED physicians across Canada.

HOW IS THIS STUDY DONE?

This study involves taking part in a telephone interview lasting approximately 1 hour. The interview will be audio recorded, but can be requested to be shut off at any time. During this interview we will discuss the following topics:

- Caring for patients with opioid use disorders in the ED
- Initiating buprenorphine/naloxone in the ED
- Providing other interventions for patients with opioid use disorders in the ED

We will also ask questions about personal and site demographics. You do not have to answer any questions that make you feel uncomfortable.

We will collect your contact information (ie, telephone number and/or email address) to contact you in the event that we require clarification on a perspective you shared during the interview. Providing contact information is optional.

HOW WILL THE STUDY RESULTS BE SHARED?

The main study findings will be published in academic journal articles and presented at academic conferences.

IS THERE ANY WAY THAT PARTICIPATING IN THIS STUDY COULD BE BAD FOR YOU?

There are no known risks to participating in this study.

WHAT ARE THE BENEFITS TO PARTICIPATING IN THIS STUDY?

The results of this study may not directly benefit you. However, in the future the results of this study may be used to inform policy and practice relating to the treatment of patients with opioid use disorders in EDs and may lead to changes in practice that positively impact the health of patients.

HOW WILL YOUR PRIVACY BE MAINTAINED?

No personally identifiable information, such as your name or email, will be connected to your interview responses and your identity will be kept confidential. The interview audio files will be processed by a third-party transcription service who will be required to sign confidentiality agreements prior to receiving the data. The audio files and completed transcripts will be transferred via a secure data sharing platform. The data from this survey will be stored electronically on a secure network drive hosted at the University of Alberta in Edmonton, AB. Paper versions of the informed consent forms (when signed and printed) will be stored in locked filing cabinets at the Royal Alexandra Hospital (Edmonton, AB). Direct quotations from your interview may be used in

the final publication, however all direct and indirect identifying information will be removed (anonymized quotes).

WILL YOU BE COMPENSATED FOR PARTICIPATING IN THIS STUDY?

As a measure of appreciation for your time, you will receive a $50 Starbucks card for your participation.

WHO CAN YOU CONTACT IF YOU HAVE QUESTIONS OR CONCERNS ABOUT THE STUDY?

If you have any questions about the study, please contact the Principal Investigator, Dr. Kathryn Dong, at kathryni@ualberta.ca (780-613-5022) or the Research Coordinator, Karine Lavergne, at klavergn@ualberta.ca (780-613-5043).

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study (Pro00090060), contact the University of Alberta Health Research Ethics Board at 780-492-2615.

PARTICIPANT CONSENT

Taking part in this study is entirely up to you (voluntary participation). You have the right to refuse to participate in this study. Participation or non-participation in this study will in no way affect your employment.

If you decide to take part, you may choose to pull out of the study at any time without giving a reason; however, if you choose to withdraw your consent at the time of study publication, it will be difficult to remove your responses from the analyzed data and final results.

ED PHYSICIAN INTERVIEW CONSENT FORM

Study: ED physician attitudes towards buprenorphine initiation: Qualitative Interviews

Research Investigator: Dr. Kathryn Dong, (780) 613-5022, kathryni@ualberta.ca

	YES	NO
Do you understand that you have been asked to be in a research study?	☐	☐
Have you read and received a copy of the attached information sheet?	☐	☐
Do you understand the benefits and risks involved in taking part in this research study?	☐	☐
Have you had an opportunity to ask questions and discuss the study?	☐	☐
Do you understand that you are free to refuse to participate or withdraw from the study at any time? You do not have to give a reason.	☐	☐
Can we contact you again if we need clarification on any of your interview responses?	☐	☐
Has the issue of confidentiality been explained to you?	☐	☐
Do you understand who will have access to the information you provide?	☐	☐

Participant Name: _____

Date of Interview: _____

Who explained this study to you? _____

	YES	NO
Do you provide verbal consent to take part in this study?	☐	☐
[*Interviewer*] Was verbal consent audio recorded?	☐	☐

APPENDIX 2: PHYSICIAN QUALITATIVE INTERVIEW GUIDE

Emergency Department Physician Attitudes Towards Buprenorphine Initiation in the ED

[Introduce myself: Good morning/afternoon, my name is XX, and I work with the Inner City Health and Wellness Program in Edmonton. We are doing a study in partnership with the Canadian Research Initiative in Substance Misuse.]

The purpose of this interview is to get your perspective on the role of the emergency department and the emergency physician in caring for patients with opioid use disorders. We would like to hear your opinions on initiation of opioid agonist treatments like buprenorphine/naloxone in the ED, how the ED can best care for patients with opioid use disorders and how caring for these patients has impacted front line staff. As a reminder, your participation in this study is voluntary, and you may skip any questions you don't want to answer or stop the interview at any time without penalty. I will audio-record this interview, which will then be transcribed verbatim. Any information that may identify you will be removed from the transcript prior to analysis. We may use direct quotations from you in the reported findings, but these quotations will never be linked to your name; rather, we will use a generic description of your professional role to provide context for your comments.

[TURN ON AUDIO RECORDER]

Pre-Interview: Demographics and Education

Questions:	
We would like to collect a few demographic identifiers before we start the interview. Can you tell us your:	- First and Last Name - Gender - Telephone Number - Email Address - Current Age - Urban vs. rural - Number of visits per year (approximately)
We would like to collect information on your education history and current place of employment. Can you tell us: How long have you worked in the emergency department?	- Did you train in Canada or abroad? Where? - How many years of training post-medical school did you complete? What types of patients do you typically see (special populations, including pediatric patients, young adult patients) - Do you have any other areas of practice?

Topic Area I: Caring for patients with an opioid use disorder

Questions:	Possible probes:
What is your experience with caring for patients with substance use disorders?	- What changes have you seen over time with respect to patients seeking care for substance use related issues?
What is your experience caring for people with opioid use disorders in the emergency department?	- Specific examples/incidents - Frequency of encounters - Positives or negatives - How does caring for these patients differ from other patients who don't use substances, if at all? - How does caring for these patients differ from other patients with substance use disorders (e.g. using stimulants, alcohol, etc.), if at all? - How are youth with opioid use disorders managed at your site?
Sometimes social determinants of health, such as race, gender and class, can influence how people with opioid use disorders are perceived and treated in the ED. What has been your experience of this at your site?	- Any specific examples featuring differences in care based on race? - Any specific examples featuring differences in care based on gender? - Any specific examples featuring differences in care based on class?
Do you think that your emergency department does a good job caring for patients with opioid use disorders?	- Are there things that we should or should not be doing? - Are there things that place patients at risk?
Do you feel you have the skills required to take care of patients with opioid use disorders in your ED?	- What skills are you missing? - How should training be provided to ED physicians? - Have you taken any extra training in this area?
Do you have timely access to an addiction medicine consult service, phone advice line or another way to access expert advice for patients with opioid use disorders?	- If not, would this be helpful? - What else could make your job easier (including designated care spaces, specialized human resources such as addiction nurses and peer navigators)? - What is good/bad about these services?
We've heard from patients that they sometimes feel stigmatized in the ED. Why do you think that is?	- Injection drug use, social factors (e.g. homelessness), race? - Do you have any strategies in your emergency department to address this?

Topic Area II: Initiation of opioid agonist treatment in the ED

Questions:	Possible probes:
Do you have a way to systematically identify or screen patients for high-risk opioid use in your emergency department?	- If yes, how so? - If no, would something like this be helpful?
Have you ever started a patient on buprenorphine/naloxone in the ED?	- How did you find this experience? - What made it easy or difficult? - If no, would you feel comfortable doing this on your next shift?
What are the main barriers to initiating buprenorphine/naloxone in the ED?	- Is the risk of precipitated withdrawal a barrier (why or why not)? - How do you treat/manage precipitated withdrawal?
Do you think that your ED is an appropriate place to initiate patients on buprenorphine/naloxone treatment for their opioid use disorder?	- Why or why not? - Where is the most appropriate place? - What is the responsibility of the ED?
What do your colleagues think about initiating buprenorphine/naloxone in the ED?	- What are their successes? - What are their concerns?
What do you and your colleagues think about prescribing buprenorphine/naloxone for home initiation, or to-go?	- What are your/their successes? - What are your/their concerns?
What are the key things to have in place in the ED for buprenorphine/naloxone initiation to occur successfully?	- Special staff required? - Medication availability? - Follow-up process? - Staff training?
What should happen in the ED for patients with an opioid use disorder in whom buprenorphine/naloxone has not worked in the past?	- What would happen to this patient in your ED today? - Should the ED initiate other forms of opioid agonist treatment?
How many days of buprenorphine/naloxone should patients be given upon discharge from the ED? Should they receive a prescription?	- Why this length of time? - What do you think about giving someone a daily witnessed prescription for 1 week? For 2 weeks?
Are you worried about the buprenorphine/naloxone that you give to patients being diverted to the illegal marker?	- What are the risks and/or benefits of this? - Does the risk of diversion affect the length of your prescribing?

Topic Area III: Other treatments for patients with opioid use disorders in the ED

Questions:	Possible probes:
How do you incorporate harm reduction discussions into your ED care, if at all?	- Specific examples/incidents - Do you talk to all your patients with opioid use about harm reduction? - Does your incorporation of harm reduction strategies differ between patients? - Does the level of harm reduction knowledge differ between physicians?
Some patients will use substances while in the ED waiting room or while in the department. How do you think this should be managed in the ED?	- Have you ever had an ED patient have an unintentional overdose in the waiting room or in the department? - What would make this situation safer for patients and staff?
What, if any, harm reduction services should be made available through the ED?	- Naloxone kits? Why or Why not? - Sterile Syringes? Why or Why not? - Supervised consumption services? Why or Why not? - Peer Support? Why or Why not?
Naloxone Kit: Do you offer patients with opioid use disorders a naloxone kit in the ED?	- Why or why not? - How often do you give kits out?
Sterile Syringes: Have you ever provided sterile syringes to patients who inject drugs? [If yes] How often have you provided sterile syringes? [If no] What are some of the reasons you haven't provided sterile syringes?	- What was your experience? - Does this happen routinely/ever in your ED? - Does your hospital distribute sterile supplies? - Have patients asked for sterile syringes?
SCS: Do you refer patients to supervised consumption services?	- Why or why not? - How often do you refer patients?
SCS: Do you think patients in the ED or the waiting room should have access to a supervised consumption service? [If yes] Why do you think this is a good idea? [If no] Why do you think this is a bad idea?	What would it take to make this happen at your hospital?
Peer Support: Peer support workers are individuals with lived experience of substance use. Do you think there is a role for peer support workers in the ED?	- Why or why not? - How could they be most helpful in the ED? - Do you have access to peer support workers in your ED? - Do you refer patients to peer support workers in the community?
I'd like you to imagine a scenario: You are working a shift tomorrow and you are able to provide better care to a patient who injects opioids. What makes it better? (In other words, what can be immediately done to improve service delivery to this population)?	- What would make it better in the short term? In the long term? - What do you wish for in the future? ○ For yourself? ○ For your team? ○ For your hospital?
Is there anything else you think we should be doing in the emergency department for patients with opioid use disorders?	
Can we contact you again if we need clarification on any of the responses you've shared with us today?	- 7-Email, phone contact information

[END OF INTERVIEW]

APPENDIX 3: CODING TREE CODE DESCRIPTIONS IN ALPHABETIC ORDER

Code	Description
Motivation to train and treat	References to physician motivation to acquire OAT training or to offer and initiate treatment in ED.
Non-systematic OUD screening	References to lack of routine screening, physician over-reliance on patients with OUD stereotypes, or physician failure to discuss opioid use with patients as a barrier to uptake.
OAT education (via ED)	References to OAT education and training received via the ED (in-service, meetings, journal clubs), often about induction protocols or follow-up care pathways, as a (perceived) facilitator of uptake. (Also relates to "experienced staff" code under Human Resources subtheme below.)
Patient ability to engage and comply	References to patients' alert cognitive state, ability to understand and follow instructions, and social determinants of good health as a (perceived) facilitator of patient engagement and compliance with treatment.
Patient inability to engage and comply	References to patients' social determinants of poor health (lack of housing, transportation) or cognitive impairment as a barrier to uptake.
Patient negative perceptions of treatment	References to patients' concerns about precipitated withdrawal, bad previous experiences with BUP, or aversion to OAT and BUP as a barrier to uptake.
Patient self-disclosure	References to patient self-disclosure of opioid use or OUD as a (perceived) facilitator of uptake.
Patient unwillingness to engage and comply	References to patient lack of motivation of change their opioid use (precontemplative) or unwillingness to undergo BUP treatment because of aversion to withdrawal symptoms as a barrier to uptake.
Patient willingness to engage and comply	References to patients' motivation to change (contemplative) or requests for treatment as a facilitator of uptake.
Perceived ED incompatibility	References to physician beliefs that emergency medicine and ED (i.e., acute care) are incompatible with long-term treatments for chronic conditions, like BUP.
Perceived ED responsibility	References to physician beliefs that ED has an obligation or responsibility to offer and initiate BUP as a (perceived) facilitator of uptake.
Physician clinical gestalt (to identify high risk patients)	References to using clinical gestalt or forming patient impressions based on available data—including information gathered from prescription monitoring programs and medical records—to identify potential candidates as a (perceived) facilitator of uptake.
Physician discussion of opioid use	References to directly asking patients about their opioid use to identify high risk patients as a (perceived) facilitator of uptake.
Physician resistance to systematic screening	References to a lack of evidence demonstrating the effectiveness of systematic screening, to the unavailability of OAT or other interventions to offer patients who screen positive, or to increased ED burden of screening as a barrier to uptake.
Practice variance	References to differences in physician willingness and ability to offer and initiate BUP treatment in the ED that result in practice variance.
Proactive approach	References to physician beliefs that every ED encounter is an opportunity to intervene or that treatment should be initiated at first point of contact with health care system.
Provide treatment counselling	References to taking time to provide adequate treatment counselling so that patients know what to expect and how to take the medication properly to avoid precipitated withdrawal as a facilitator of uptake.
Reliable access to medication	References to reliable availability of BUP medication in ED as facilitator of uptake.
Routine OUD screening	References to routine, systematic, or standardized OUD screening processes, either universal or targeted based on patient risk factors, as a (perceived) facilitator to uptake.
Standardized induction protocols	References to BUP induction protocols and/or pre-printed order sets, particularly their potential for mitigating precipitated withdrawal concerns, as a (perceived) facilitator of uptake.
Stigma conundrum (patient identification)	References to the increased potential for stigmatization and patient experience of stigma as a result of routine OUD screening as a perceived barrier to care.
Stigma toward patients with OUD	References to stigma or to lack of trust in patients as barrier to initiating BUP treatment via ED.
Support patient autonomy	References to using a patient-centered approach to care (in the context of BUP treatment) or to providing information and means (e.g., home initiation options) that empower patients to make their own care choices as a facilitator of uptake.
Supportive ED infrastructure	References to having adequate or abundant addiction resources to support BUP initiation in ED as (perceived) facilitator of uptake.
Take-home BUP	References to take-home BUP, either a full home initiation or a micro-induction regimen, as a (perceived) facilitator of uptake and as a means to reduce ED treatment burden.

Code	Description
Adapt ED space and resources	References to having additional, dedicated space, staff, and other ED resources as a (perceived) facilitator of uptake.
Addiction medicine services	References to addiction medicine consult services or to physicians with crossover addiction medicine training available to perform BUP initiations in ED, undertake alternative treatment, or take on complex cases (i.e., physicians with ability to offload medical/pharmacological treatment processes from physicians) as a (perceived) facilitator of uptake.
Addiction support services	References to specialized and/or dedicated staff to perform screening, counselling, monitoring, and follow-up arrangements (i.e., nurses, social workers, peer navigators to offload non-pharmacological treatment processes from physicians) as a (perceived) facilitator of uptake.
No Regulatory College requirements	References to the lack of Regulatory College requirements for prescribing as facilitator of uptake.
Regulatory College requirements	References to the Regulatory College requirements for prescribing as barrier to uptake.
Concerns of misuse and diversion	References to the potential of prescribed BUP medication being misused or diverted to the illegal market and to the resulting public safety concerns as a barrier to uptake.
Difficult medication access	References to lack of or difficult access to BUP medication from ED pharmacy as barrier to uptake.
Difficulty engaging patients in care	References to difficulty establishing rapport or to patients' withdrawal symptoms and disruptive behavior as a barrier to uptake.
Divert to outpatient resources	References to diverting patients with OUD wanting to start BUP treatment to OAT clinics or community prescribers in settings staffed with addiction experts that provide wraparound supports in a calmer, more appropriate environment as a means to reduce ED treatment burden.
Establish good rapport	References to building good patient–provider rapport (trust, honesty, open communication) using an empathetic, compassionate, non-judgmental approach as a (perceived) facilitator of uptake.
Experience	References to acquiring or having acquired experience delivering treatment in ED or via preceptorships or clinic appointments as a (perceived) facilitator of uptake.
Experienced staff (to support treatment)	References to having experienced support staff (nurses, social workers) with basic knowledge of treatment, induction protocols, and/or community resources as a (perceived) facilitator of uptake.
Formal OAT training	References to OAT training acquired via continuing medication education or emergency medicine training programs, ideally tailored for physicians, as a (perceived) facilitator of uptake.
Harm reduction philosophy	References to a harm reduction philosophy or approach to care, or to the treatment's potential for reducing opioid use-related harm as a motive or facilitator of uptake.
Integrated addiction clinics	References to addiction clinics adjacent to, or integrated within the ED or hospital as a (perceived) facilitator of uptake.
Integrated follow-up care pathways	References to having pre-established, formalized, and/or protocolized care pathways for follow-up as (perceived) facilitators.
Lack adequate protocols	References to a lack of standardized protocols or pre-printed order sets for BUP initiations, or to inadequate protocols as barrier to uptake.
Lack experience	References to lack of experience administering treatment (e.g., concerns of precipitated withdrawal) as barrier to uptake.
Lack motivation to train and treat	References to lack of physician motivation to acquire OAT training or to offer and initiate BUP treatment in ED.
Lack OAT training (generalists)	References to a lack of OAT training or to the omission of OAT training in emergency medicine (generalist) training programs as a barrier to uptake.
Limited ED resources	References to limited ED resources as a barrier to uptake.
Limited human resources (to support treatment)	References to lack of or to limited access to specialized, dedicated, and/or experienced human resources to initiate treatment or assist with BUP initiation processes as barrier to uptake.
Low concerns of misuse and diversion	References to low concerns regarding BUP medication being misused or diverted to the illegal market.
Mentors	References to seeking advice from physicians with addiction medicine training either in person or by phone as a (perceived) facilitator of uptake.
Minimize patient discomfort	References to minimizing patient discomfort in ED by initiating BUP treatment in ED, by managing withdrawal symptoms in preparation for BUP initiation or in response to BUP-induced precipitated withdrawal, or by discharging patients with BUP medication for self-initiation as a (perceived) facilitator of uptake.

(Continues)

Code	Description
Team (consensus) approach	References to the need for all ED care providers (physicians, nurses, social workers) to work together as a team and support each other, have an ED culture favorable to BUP treatment as (perceived) facilitator of uptake.
Timely access to OAT prescribers (for follow-up)	References to timely, reliable access to OAT prescribers or clinic for follow-up care and treatment maintenance as a (perceived) facilitator of uptake.
Transitional care	References to resources and services to bridge the gap between the ED and follow-up care, such as prescribing BUP, providing transportation, or holding patients in ED overnight, as a (perceived) facilitator of uptake.
Treat straightforward cases, offload others	References to low patient complexity as a (perceived) facilitator and/or to high patient complexity or unsuitability for ED initiation as a barrier to uptake.
Treatment is appropriate for ED	References to ED as an appropriate place to initiate BUP.
Treatment is resource intensive	References to high level of resources needed to initiate BUP in ED as barrier to uptake.
Treatment is safe and effective	References to positive perceptions of BUP treatment safety and effectiveness.
Treatment uptake is increasing	References to observations of increased BUP treatment awareness and uptake by care providers and patients.
Unreliable follow-up care	References to unreliable access to OAT clinics/prescribers or to lack of pre-established care pathways for follow-up care as barrier to uptake.

Note. BUP, buprenorphine/naloxone; ED, emergency department; OAT, opioid agonist treatment; OUD, opioid use disorder.