ORIGINAL PAPER



HIV Physicians and Chronic Opioid Therapy: It's Time to Raise the Bar

Jennifer J. Carroll^{1,2} · Jonathan Colasanti^{3,4} · Marlene C. Lira⁵ · Carlos del Rio^{3,4} · Jeffrey H. Samet^{5,6}

Published online: 5 December 2018 © Springer Science+Business Media, LLC, part of Springer Nature 2018

Abstract

Clinical practice that utilizes chronic opioid therapy has been recognized as one major cause of the opioid crisis. Among patients living with HIV, the risks associated with chronic opioid therapy may be complicated by factors such as co-occurring mental health diagnoses, substance use, and economic marginalization. Improving opioid prescribing practices in HIV clinics requires attention to these and other characteristics common to HIV care. In the context of a randomized controlled trial testing an intervention to improve opioid prescribing practices in HIV outpatient clinics, we interviewed physicians about their perspectives on chronic opioid therapy. Overwhelmingly, physicians voiced ambivalence about their own knowledge and comfort with prescription opioids. They raised concerns about the impact of opioid prescribing on patient-provider relationships and the increasing workload associated with prescribing and monitoring patients. In this report, we explore these concerns and propose several strategies for improving clinical care in which chronic opioid therapy is addressed.

Keywords HIV · Opioids · Pain · Safety · Prescribing

Introduction and Methods

The toll of the opioid crisis continues to grow. Mortality data recently released by the U.S. Centers for Disease Prevention and Control (CDC) indicate that more than 72,000 people died from a drug overdose in 2017; two-thirds of those deaths were opioid-related [1]. The face of the opioid epidemic has been rapidly evolving, with many users of diverted prescription opioids transitioning to heroin [2] and fentanyl appearing in many facets of the U.S. drug market

- ☑ Jennifer J. Carroll jcarroll16@elon.edu
- Department of Medicine, Brown University, Providence, RI, USA
- Department of Sociology and Anthropology, Elon University, 2035 Campus Box, Elon, NC 27244, USA
- Division of Infectious Diseases, Emory University, Atlanta, GA, USA
- ⁴ Hubert Department of Global Health, Rollins School of Public Health, Emory University, Atlanta, GA, USA
- ⁵ Clinical Addiction Research and Education (CARE) Unit, Section of General Internal Medicine, Department of Medicine, Boston Medical Center, Boston, MA, USA
- Department of Community Health Sciences, Boston University School of Public Health, Boston, MA, USA

[3]. Part of the causes of this epidemic is attributable to opioid prescribing practices [4].

Acknowledging the role that the healthcare system has played in the opioid epidemic raises many challenging questions for clinicians. Am I acting in the best interest of my patients? How should I, when prescribing opioids, balance the need for caring for my patient's chronic pain with the risk for misuse of the opioid medication and the broader public health concerns? How will I know if I have made the right choices? In this perspective, we emphasize the particular complexity of these questions in the context of HIV outpatient care. In addition to treating frequent and complex chronic pain complaints among people living with HIV (including but not limited to HIV-related peripheral neuropathy, and concerns that changes in opioid care may have consequences for anti-retroviral medication adherence) HIV physicians may be serving patients who present with a history of substance use who have co-occurring physical or mental health issues [5], or who are experiencing social or economic marginalization [6–8] or substance use disorders [6, 9, 10]. Though this certainly does not describe all individuals receiving long-term HIV care, an HIV physician is likely to face these challenges more frequently than other physicians [11]. Each of these factors complicates the task of managing opioid prescribing and monitoring patients for safety [12, 13].

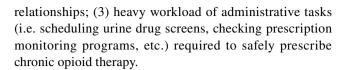


In particular, these challenges arise for HIV specialists who are providing chronic opioid therapy for pain management to patients living with HIV. In the context of a study focused on opioid prescribing practices (ClinicalTrials.gov Identifier: NCT02564341) [6, 14], we conducted qualitative interviews with ten HIV care physicians who had recently participated in a randomized control trial that tested the effect of a collaborative care model on the management of patients receiving chronic opioid therapy. The collaborative care model addressed significant challenges in the management of chronic opioid therapy, including many unique to HIV care, and was based on the TOPCARE model for safer opioid prescribing (http://mytopcare.org), which has been shown to improve the safety of opioid prescribing practices in primary care [15, 16]. Interviews were conducted [by J.C., who was not involved in the delivery of study interventions] after the trial was concluded. Physicians from the trial's intervention arm (who received additional clinical supports during the trial) and from the control arm (who received no additional support but were generally aware that study interventions related to opioid prescribing were being implemented elsewhere in their clinic) were randomly sampled for interviews (n = 5 and n = 3, respectively). Interview guidelines were designed to explore physicians' concerns and perspectives related to chronic opioid therapy and, for those in the intervention arm, their reflections on the study intervention after the trial had ended. All interviews were digitally recorded and transcribed. Transcription analysis was completed through iterative coding exercises carried out by an assigned research team that included several authors. Transcripts were first free-coded to identify emergent themes, then subsequently subject to multiple rounds of re-coding to further explore the content areas most germane to the questions addressed here.

The primary message conveyed by these physicians is that there is room for improvement around chronic opioid therapy in HIV clinics: specifically, physicians described common challenges in managing chronic opioid therapy and made clear recommendations for resolving these issues. It is time to allocate necessary resources, provide necessary training and support, and equip clinicians with the tools they need to better serve their patients. Below, we describe some of the barriers to safer opioid prescribing in the HIV clinic and discuss interventions that appear to be feasible and poised to improve patient care in the context of chronic opioid therapy in this setting.

Results Theme 1: Challenges in the HIV Clinic

We identified three themes that dominated clinician experiences prescribing chronic opioid therapy: (1) low levels of knowledge and confidence; (2) strain on patient



Knowledge and Confidence

Physicians were generally quick to acknowledge their lack of formal education on the use of opioids for pain management. Further, clinicians reported that the presence of additional staff in the clinic with expertise in chronic opioid therapy over the previous few months—support staff provided by the study—had heightened their awareness of the limitations of their training, leading physicians in the control arm (who were given few supports for improving their knowledge base compared to their peers in the intervention arm of the study) to speak directly about this issue in interviews. ["I feel under-trained. And I really don't know what I'm doing."].

Physicians also reported having little opportunity for onthe-job learning about the management of chronic opioid therapy—or chronic pain more generally. Sometimes, this perceived lack of clinical training resulted in a deep frustration, as they did not always see a clear path forward for their patients. ["I don't know if there's currently a strategy to wean them down [off of the opioids]. And if I should even be thinking about that and if I should be trying to do that or if I'm...I'm ignorant about...What's the goal of that specific therapy?"]. Others conveyed low confidence in their ability to manage chronic opioid therapy ["I feel uncomfortable probably because of lack of experience, because I haven't been putting people on Oxycontin for a long time."] or to monitor patient safety in the context of chronic opioid therapy ["Many of us don't feel comfortable [prescribing opioids] in terms of when we start, what we assess, what we're looking for, what we're tracking."].

Patient Relationships

Clinicians emphasized that developing trusting relationships in the context of long-term primary care was key for successful HIV control and the promotion of patient health more generally. They also expressed a common concern for avoiding unnecessary conflict, which could destabilize that relationship. For those with patients who were stable while receiving chronic opioid therapy, the long-term benefits of altering that mode of care were not entirely clear ["He's stable, he's suppressed. His HIV's suppressed. He's got a job. He's happy. He's got a partner with whom he's using appropriate condoms. Like, I'm not going to strip that guy off Oxycontin just because we're supposed to be doing that now, because we're fighting



addiction...It's not clear to me that getting him off of the narcotic is a true good in and of itself."].

Some physicians also voiced concerns that their relationships with patients suffered additional stress when new patient monitoring standards were applied, which further complicated assessments of the costs and benefits of altering their methods for managing chronic opioid therapy ["They [the patients] feel like they have been good citizens and were now being treated with suspicion, like they were addicts. So, I think it harmed the relationship, yeah."]. Others expressed concern that this stress could affect patient retention or cited previous experiences when patients left care following a discussion about aberrant use of opioids for pain management ["I've had one patient who left care here, because she was unhappy that I said, you know, [you broke] your [pain] contract, so you can no longer take chronic opioids."].

The Work of Monitoring

The administrative tasks of monitoring patients receiving chronic opioid therapy fall to the clinical team working with the prescriber including nurses and other clinical support staff. This work adds to the list of tasks that the clinical team then needs to address in a limited amount of time ["How are we going to do this in reality and in an environment where time is shrinking and the burden of clicking is increasing within that constricting time constraint and the number of diseases and medicines we're managing is getting greater?"]. One physician even suggested the volume of work required to monitor patients on chronic opioid therapy was a deterrent to providing comprehensive pain care in the HIV clinic ["It's such an involved medical care that many physicians don't want to do it. They don't want to get involved. They don't want to learn."].

Those physicians who did achieve success in integrating these monitoring obligations into clinical care did so through the assistance of nursing staff dedicated to patient counseling and monitoring for chronic opioid therapy ["One thing I particularly found useful was a nurse who was dedicated...so she could keep track of what was being prescribed, how much. She had more time to dedicate to the patient if they had any questions. And also to track possible abusive use and if necessary to check the prescription monitoring programs."]. Those without such nursing support often resorted to transferring their patients to a different department in the hospital for pain care ["They [the physicians specializing in addiction medicine] had the expertise. They had the support. They had the nursing support."].

Results Theme 2: Strategies for Improving Chronic Opioid Therapy in HIV Care

In interviews, we identified three dominant proposals for improving the quality of opioid prescribing practices in HIV clinics: (1) didactic support through academic detailing; (2) increasing support staff for managing opioid prescriptions; and (3) training more addiction specialists.

Academic Detailing

Some, but not all, physicians we spoke to were offered several academic detailing sessions with a pain specialist, who discussed each physician's panel of patients on chronic opioid therapy and assisted in developing strategies for improving patient care. This detailing opportunity was very popular, and many clinicians expressed that they gained new knowledge and skills as a result ["I'm a better prescriber than I was."] ["It broadened my perspective as a clinician."].

Increasing Support Staff

Some physicians we spoke to had access to a nurse care manager dedicated to assisting with administrative duties and patient care with regard to chronic opioid therapy. Clinicians consistently described the support of the nurse care manager as the most valuable support they received to address chronic opioid therapy ["Having [the nurse care manager] do so much of the legwork, do the contracts, get the urines, free-write the prescriptions, just meet with the patients—that made it all much more easy to do in the workflow."]. This particular nurse care manager eventually left the clinic for another position. Afterwards, some physicians reported that clinical procedures were beginning to backslide. This convinced many that creating a dedicated nurse care manager role as part of the responsibilities of a nurse would be essential for safe opioid prescribing ["I think having dedicated folks manage the monthly prescription and monitoring of opioids or benzos or any of those controlled substances makes a lot of sense...somebody who's doing all the appropriate screenings, who's...checking on all the psychosocial stuff that's going on and doing the urines, doing the PMPs [prescription monitoring program]. We don't have that here."].

Training More Addiction Specialists

The HIV clinic where these physicians work is housed within a large hospital system that provides for easy referrals to specialists in other departments. Several physicians took advantage of this hospital structure to transfer their



patients on chronic opioid therapy to a physician specializing in addiction medicine for ongoing pain care. To many, this simply seemed a common-sense thing to do ["Not that you wouldn't give a patient medication because they were high risk for addiction if they really needed it, but you would do it in conjunction with [an addiction medicine specialist]."]. Others retained patients in their care for pain management, but nevertheless acknowledged the limitations of what one person can do ["Maybe this becomes a specialty. Maybe this patient needs a pain doctor and not me, right? Because I can't do the Hep C, the kidney mass, the diabetes, the heart failure, and the pain."].

Discussion

This qualitative study identified several common challenges faced by HIV specialists when providing care for chronic pain, including inadequate knowledge of opioids and opioid use disorder, insufficient clinical staff to conduct regular patient monitoring, and an anxiety that any disruptions to current regimens of chronic opioid therapy would destabilize the patient or the patient-provider relationship, both of which could result in worse patient outcomes.

Inadequate knowledge of opioids and opioid use disorder was a particularly significant concern for many providers. Some felt that their medical education in these topics could have been more robust. If these topics are under-taught, it is likely fueled by the fact that they are under-researched as well Indeed, as the authors of the recent CDC opioid prescribing guidelines observe, insufficient research exists on the long-term effects of chronic opioid therapy [17], which leaves physicians with little capacity to make evidence-based decisions with patients on chronic opioid therapy who appear to be otherwise stable.

This concern could be directly addressed by expanding academic detailing—a strategy about which most HIV specialists were enthusiastic. Academic detailing has been found effective in improving the quality of care across numerous medical specialties due to its ability to successfully "market" best practices to clinicians [18]. Academic detailing could be used to support the implementation of best practices for prescribing chronic opioid therapy to HIV-positive patients, including those outlined by the CDC [17] and others [19]. These guidelines advocate for regular monitoring for those receiving chronic opioids including urine drug testing, pill counts, and regular checking of the prescription monitoring program. The risks of chronic opioid therapy can also be mitigated through specific time limited strategies like writing prescriptions for fewer days, which requires more frequent clinic visits, prescriptions, and refills. With properly trained detailers and attention to the appropriateness of fit between the detailer and the group being detailed, academic detailing could be a modest-resource, high-impact intervention for implementing safer prescribing practices for prescribers as well as for nursing staff.

The clinicians in this study were able to access clinical and pedagogical support from addiction medicine specialists working within the same clinical system. Unfortunately, for many clinicians—and for many of their patients—addiction specialists can be challenging to find. For those who do not provide or receive care within a larger health system, efforts to link patients living with HIV to addiction specialists will require enhanced efforts to scale up the clinical addiction workforce. This could be achieved by training more addiction specialist physicians and nurses and facilitating access to existing specialists through telemedicine programs [20, 21]. The findings of this study may also provide motivation for better integrating addiction medicine and HIV care through collaborative practice arrangements or through supporting the cross-training of addiction medicine and infectious disease specialists, given the frequent overlap of these health concerns in their respective patient populations. Further study exploring the efficacy and implementation of these strategies is merited.

Finally, the importance of adequate clinical support to facilitate safe opioid prescribing practices should not be overlooked. Our findings that the administrative burden of monitoring patients on chronic opioid therapy is a major barrier to following CDC guidelines consistent with safer opioid prescribing. The potential for a single nurse care manager within the clinic to alleviate that burden is suggested from other studies. A randomized controlled trial testing nursing support as an intervention for primary care clinicians found that this additional support significantly increased guidelineadherent opioid prescribing practices [15]. Other qualitative work has also found that, when forced to make a choice, HIV specialists will typically prioritize HIV care over guidelineadherent opioid prescribing [22]. Therefore, we encourage clinic administrators to recognize the importance of sufficient and appropriately trained staffing in clinics managing patients with chronic pain. While newer interventions like academic detailing and telemedicine may appear tantalizingly low-budget, educational support for clinicians will not replace the need for adequate number of clinic staff.

Conclusion: It's Time to Raise the Bar

In addition to raising awareness of the unique challenges to safe opioid prescribing faced by physicians providing HIV care, we encourage clinic directors, hospital administrators, and local health authorities to recognize the additional supports and resources physicians will need in order to fully conform with current recommended best practices for chronic opioid therapy for patients with HIV [19].



Strategies to ease these challenges could be implemented on the individual level (e.g. training, academic detailing) or at the clinic level (e.g., dedicated nursing staff, changes to electronic medical records systems to streamline patient monitoring). Testing, evaluating, and ultimately implementing these strategies will require some expense in terms of time and resources, but feedback received from HIV specialists is clear: it's time to raise the bar for safe opioid prescribing in HIV clinics and beyond.

Acknowledgement This work was supported by the National Institutes of Health/National Institutes of Drug Abuse [R01DA037768 to J.H.S and C.d.R.]. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute on Drug Abuse or the National Institutes of Health.

Compliance with Ethical Standards

Conflicts of interest All authors declare that they have no conflicts of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in this study.

References

- Ahmad F, Rossen L, Spencer M, Warner M, Sutton P. Provisional drug overdose data [Internet]. National Center or Health Statistics; 2018. Available from: https://www.cdc.gov/nchs/nvss/vsrr/drugoverdose-data.htm.
- Mars SG, Bourgois P, Karandinos G, Montero F, Ciccarone D. "Every 'never' I ever said came true": transitions from opioid pills to heroin injecting. Int J Drug Policy. 2014;25(2):257–66.
- 3. Ciccarone D. Editorial for "US Heroin in Transition: Supply Changes, Fentanyl Adulteration and Consequences" IJDP special section. Int J Drug Policy. 2017;46:107–11.
- Rummans TA, Burton MC, Dawson NL. How good intentions contributed to bad outcomes: the opioid crisis. Mayo Clin Proc. 2018;93(3):344–50.
- Uebelacker LA, Weisberg RB, Herman DS, Bailey GL, Pinkston-Camp MM, Stein MD. Chronic pain in HIV-infected patients: relationship to depression, substance use, and mental health and pain treatment. Pain Med Malden Mass. 2015;16(10):1870–81.
- Colasanti J, Lira MC, Cheng DM, Liebschutz JM, Tsui JI, Forman LS, et al. Chronic opioid therapy in HIV-infected patients: patients' perspectives on risks. Monitoring and Guidelines: Clin Infect Dis; 2018.
- Arentoft A, Byrd D, Monzones J, Coulehan K, Fuentes A, Rosario A, et al. Socioeconomic status and neuropsychological functioning: associations in an ethnically diverse HIV+ cohort. Clin Neuropsychol. 2015;29(2):232–54.
- 8. Sionean C, Le BC, Hageman K, Oster AM, Wejnert C, Hess KL, et al. HIV Risk, prevention, and testing behaviors among

- heterosexuals at increased risk for HIV infection—National HIV Behavioral Surveillance System, 21 U.S. cities, 2010. Morb Mortal Wkly Rep Surveill Summ Wash DC 2002. Morb Mortal Wkly Rep Surveill Summ. 2002;63(14):1–39.
- Merlin JS, Walcott M, Kerns R, Bair MJ, Burgio KL, Turan JM. Pain self-management in HIV-infected individuals with chronic pain: a qualitative study. Pain Med Malden Mass. 2015;16(4):706-14.
- Hansen L, Penko J, Guzman D, Bangsberg DR, Miaskowski C, Kushel MB. Aberrant behaviors with prescription opioids and problem drug use history in a community-based cohort of HIV-infected individuals. J Pain Symptom Manag. 2011;42(6):893–902.
- 11. Namisango E, Harding R, Atuhaire L, Ddungu H, Katabira E, Muwanika FR, et al. Pain among ambulatory HIV/AIDS patients: multicenter study of prevalence, intensity, associated factors, and effect. J Pain Off J Am Pain Soc. 2012;13(7):704–13.
- Merlin JS, Zinski A, Norton WE, Ritchie CS, Saag MS, Mugavero MJ, et al. A conceptual framework for understanding chronic pain in patients with HIV. Pain Pract. 2014;14(3):207–16.
- Lum PJ, Little S, Botsko M, Hersh D, Thawley RE, Egan JE, et al. Opioid-prescribing practices and provider confidence recognizing opioid analgesic abuse in HIV primary care settings. J Acquir Immune Defic Syndr. 2011;56(1):S91–7.
- Tsui JI, Walley AY, Lira MC, Chaisson CE, Forman LS, Colasanti JA, et al. Opioid Prescribing Attitudes and Risk Mitigation Practices in Two HIV Clinics. Conference presentation presented at: Annual Meeting of the College on Problems of Drug Dependence; 2017: Montreal.
- Liebschutz JM, Xuan Z, Shanahan CW, LaRochelle M, Keosaian J, Beers D, et al. Improving adherence to long-term opioid therapy guidelines to reduce opioid misuse in primary care: a clusterrandomized clinical trial. JAMA Intern Med. 2017.
- Bauer SR, Katz MH. Going beyond guideline-concordant opioid therapy to improve patient safety. JAMA Intern Med. 2017;177(9):1272.
- Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for chronic pain-United States, 2016. JAMA. 2016;315(15):1624–45.
- 18. Avorn J. Academic detailing: "Marketing" the best evidence to clinicians. JAMA. 2017;317(4):361–2.
- Bruce RD, Merlin J, Lum PJ, Ahmed E, Alexander C, Corbett AH, et al. 2017 HIVMA of IDSA clinical practice guideline for the management of chronic pain in patients living with HIV. Clin Infect Dis. 2017;65(10):e1–37.
- Katzman JG, Galloway K, Olivas C, McCoy-Stafford K, Duhigg D, Comerci G, et al. Expanding health care access through education: dissemination and implementation of the ECHO model. Mil Med. 2016;181(3):227–35.
- Weinstein RS, Lopez AM, Joseph BA, Erps KA, Holcomb M, Barker GP, et al. Telemedicine, telehealth, and mobile health applications that work: opportunities and barriers. Am J Med. 2014;127(3):183-7.
- 22. Starrels JL, Peyser D, Haughton L, Fox A, Merlin JS, Arnsten JH, et al. When human immunodeficiency virus (HIV) treatment goals conflict with guideline-based opioid prescribing: a qualitative study of HIV treatment providers. Subst Abuse. 2016;37(1):148–53.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

