VIEWPOINT

Opioids Out, Cannabis In
Negotiating the Unknowns in Patient Care for Chronic Pain

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With the current nationwide epidemic of opioid abuse, dependence, and fatalities, clinicians are being asked by federal agencies and professional societies to control their prescribing of narcotic medications for pain. Federal guidelines emphasize tapering, discontinuing, and limiting initiation of these drugs except in provision of end-of-life care.[1] Reducing reliance on opioids, however, is a massive task. According to one estimate, more than 650 000 opioid prescriptions are dispensed each day in the United States.[2] Unless the nation develops an increased tolerance to chronic pain, reduction in opioid prescribing leaves a vacuum that will be filled with other therapies.

Enter cannabis. As of August 2016, the District of Columbia and 25 states have legalized cannabis for medical use. Recreational use of cannabis has been legalized in 4 of these states and Washington, DC, and like initiatives are pending in other states.[3] The mandated transition to limit use of opioids, paired with the current climate around liberalizing cannabis, may lead to patients' formal and informal substitution of cannabis for opioids. Observational studies have found that state legalization of cannabis is associated with a decrease in opioid addiction and opioid-related overdose deaths.[4,5]

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This premise merits careful attention. As of 2016, empirical data supporting the use of cannabis as an effective therapy for pain are far from robust: a 2015 systematic review describes cannabinoids as "moderately" effective for chronic neuropathic and cancer-related pain.[6] However, the use of cannabinoids in clinical practice is complicated by a limited number of clinical trials, which results in an uncertain evidence base for most diseases. It is difficult to relate the standardized cannabinoid formulations most often used in such trials to actual clinical use with the wide array of available cannabis products and modes of delivery.

Given the gaps in research and corresponding absence of medical education supporting the therapeutic uses of cannabis, engaging in detailed conversations with patients about this substance in medical and psychological practices is challenging. Clinicians may lack awareness about the potential harms of cannabis, parameters for safe use, interactions with other medications, and initiation or escalation of THC (Δ^9-tetrahydrocannabinol) dosing and thus report poor self-efficacy in prescribing and guiding cannabis use for pain and other therapeutic purposes.[7] Although current evidence supports cannabis use for a limited number of conditions, (eg, chronic pain, muscle spasticity), medical cannabis has been approved by individual states for a wide variety of indications, including anorexia in HIV/AIDS, depression and anxiety disorders, psychosis, insomnia, glaucoma, Parkinson disease, seizures, Tourette syndrome, rheumatoid arthritis, traumatic brain injury, myasthenia gravis, and a host of autoimmune and neuromuscular conditions.[8]

Therefore, physicians may be placed in the uncomfortable position of explaining to patients why they might advise against treatment that appears to be endorsed by a governing body (eg, health departments of states in which medicinal use has been legalized) rather than supported by science. The ongoing federal ban on cannabis that recently was reinforced by the US Drug Enforcement Agency creates added complexity for physicians. Inconsistency across individual practitioners and health agencies regarding how to approach this substance promotes confusion and possible distrust among patients and clinicians.

In 2015, Oregon joined Colorado, Washington State, Alaska, and Washington, DC, in allowing the legal sale of cannabis for recreational use, coexisting with ongoing medical cannabis allowances in each jurisdiction. Clinicians practicing in these locations are placed in a curious position—no longer in a gatekeeper role—and many are uncertain of how and when to encourage or discourage cannabis use. Should cannabis be treated like alcohol, suggesting a threshold level under which it is safe—even beneficial—and above which it is dangerous? If so, what is the threshold? If cannabis is an acceptable substitute for opioids, in what amounts and forms should it be initiated, and how (and for whom) should it be graduated as opioids are tapered down? How should clinicians guide cannabis prescription or oversight for special populations such as youth and individuals at risk? Further, how is risk defined? At what point does treatment of chronic, daily, severe pain begin to look like prescribed (or at least sanctioned) cannabis use disorder? How can clinicians determine if cannabis is treating or causing nausea and vomiting?

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Amid these unanswered questions, clinicians may leave patients without the benefit of medical guidance regarding their cannabis use. A standard screening question for drug use could miss cannabis entirely: "Do you use illegal drugs or prescribed drugs for nonmedical purposes?" For a cannabis user in a cannabis-legal state, the answer would be no, and clinicians may move on to other areas of health inquiry.

Failing to participate actively in this conversation will negatively affect patients' quality of care. Cannabis exists in a parallel pharmacotherapy that physicians cannot dismiss when prescribing other medications with potential interactions or when evaluating a patient's physical or mental health symptoms. In states with recreational legalization, physicians essentially cede agency over the type, frequency, and amount of cannabis their patients use to retail shop owners with commercial interests. The same can be said, to some degree, for states with legalized medical use, where physicians may authorize patients to receive cannabis but are not involved in dosing or administration. Clinicians thus miss an opportunity to counsel patients about serious adverse effects; the risks of cannabis use disorders and withdrawal; potential negative effects on fetal development if cannabis is used during pregnancy; dangers of driving under the influence of cannabis, particularly if taken in combination with alcohol; potential effects of cannabis on the developing body and brain; and safe storage of cannabis products to avoid unintentional overdoses by children or other household members.

The federal government has been called on to address the question of whether cannabis can be an effective and safe substitute to opioid therapy for treatment of pain.[9] While awaiting the results of research that will inform discussions with patients around cannabis use, clinicians must use available evidence and expert opinion to guide best practices in states where cannabis is legal for recreational purposes, medical purposes, or both.

The prescribing of opioid therapy for chronic noncancer pain advanced unchecked until opioid-related adverse events and other consequences reached epic proportions. To ensure the medical community does not repeat this mistake with cannabis, physicians should balance the need to keep pace with the swiftly evolving cultural, social, and legal climate surrounding cannabis use for pain with the imperative to guide practice with sound science.

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REFERENCES

1. Department of Health and Human Services. The opioid epidemic: by the numbers, 2016. http://www.hhs.gov/sites/default/files/Factsheet-opioids-061516.pdf. Accessed July 19, 2016.

2. Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for chronic pain—United States, 2016. *JAMA*. 2016;315(15):1624-1645.

3. National Conference of State Legislatures. State medical marijuana laws: September 29, 2016. http://www.ncsl.org/research/health/state-medical-marijuana-laws.aspx. Accessed October 13, 2016.

4. Powell D, Pacula RL, Jacobson M. Do medical marijuana laws reduce addiction and deaths related to pain killers? RAND working paper, November 2015. https://www.rand.org/content/dam/rand/pubs/working_papers/WR1100/WR1130/RAND_WR1130.pdf. Accessed October 13, 2016.

5. Hayes MJ, Brown MS. Legalization of medical marijuana and incidence of opioid mortality. *JAMA Intern Med*. 2014;174(10):1673-1674.

6. Whiting PF, Wolff RF, Deshpande S, et al. Cannabinoids for medical use: a systematic review and meta-analysis. *JAMA*. 2015;313(24):2456-2473.

7. Ziemianski D, Capler R, Tekanoff R, Lacasse A, Luconi F, Ware MA. Cannabis in medicine: a national educational needs assessment among Canadian physicians. *BMC Med Educ*. 2015;15(1):52.

8. Rahn B. Leafly. Qualifying conditions for medical marijuana by state. https://www.leafly.com/news/health/qualifying-conditions-for-medical-marijuana-by-state. Accessed July 28, 2016.

9. Warren E. US Senate website. Letter to Thomas Frieden, Centers for Disease Control and Prevention, February 8, 2016. http://www.warren.senate.gov/files/documents/2016-2-8_Letter_to_CDC_re_opioid_epidemic research.pdf. Accessed August 9, 2016.