

Editorial

Is There a Place for Opioids in Treating Osteoarthritis?

Grace H. Lo¹



In 2018, an estimated 269 million people used some form of illicit drugs worldwide, with 58 million using opioids.¹ In that same year, 35.6 million people were reported to suffer from drug use disorders.¹

In the United States, in response to the opioid crisis, the Centers for Disease Control (CDC) published guidelines for Prescribing Opioids in Chronic Pain in 2016, with an aim to provide guidance on the responsible prescribing of opioid pain medication for chronic pain in outpatient settings, excluding active cancer treatment, palliative care, and end-of-life care.² Publication of these guidelines was an important and essential step forward in tackling this problem,³ and had an immediate effect on prescription patterns in the US within as little as 1 year.⁴

Having a dramatic effect seems ideal, as this was the intent of publishing practice guidelines. However, there have also been numerous unintended consequences to the implementation of these guidelines. Several authors of the original CDC guidelines published an editorial in the *New England Journal of Medicine* in 2019, reflecting on some of these effects, including that some policies derived from an effort to follow the CDC guidelines have been inconsistent and often exceeded those recommendations.⁵ These include rigid implementation of permitted dosage and durations of prescriptions and the abrupt enforcement of aggressive tapering schedules that led to frequently involuntary opioid discontinuation.⁶ These actions have presumably led to substantial unintended harms to patients.⁵

GHL's salary is supported in part by the Biology of Inflammation Center at Baylor College of Medicine. This work is supported in part with resources at the VA HSR&D Center for Innovations in Quality, Effectiveness and Safety (#CIN 13-413), at the Michael E. DeBakey VA Medical Center, Houston, Texas. The perspectives detailed in this editorial do not reflect the views of Baylor College of Medicine or the Department of Veterans Affairs.

¹G.H. Lo, MD, MSc, Assistant Professor, Baylor College of Medicine, and Physician, Michael E. DeBakey VA Medical Center, Houston, Texas, USA.

GHL declares no conflicts of interest.

Address correspondence to Dr. G.H. Lo, Baylor College of Medicine, 1 Baylor Plaza, BCM-285, Houston, TX 77030, USA.
Email: gbl0@bcm.edu.

As a part of the dialogue to reduce opioid use, there has been a growing question of whether opioid therapy belongs in the management of osteoarthritis (OA), the most common form of arthritis and a leading cause of disability worldwide.⁷ In 2018, *JAMA (Journal of the American Medical Association)* published the findings from the SPACE (Strategies for Prescribing Analgesics Comparative Effectiveness) trial, a highly publicized trial of patients with back or OA pain, randomized into a pharmacologic treat-to-target strategy that was either based on opioids (morphine, hydrocodone, oxycodone, fentanyl), or nonopioids (acetaminophen, nonsteroidal antiinflammatory drugs [NSAIDs], tricyclic antidepressants, gabapentin, topical therapies).⁸ Results from this study indicated that pain in the 2 arms was similar at 12 months, with more side effects in the opioid arm, promulgating a message that opioids are not more beneficial than acetaminophen and NSAIDs, and are associated with greater adverse events. This study has been used to support elimination of the use of opioids for treating OA.⁸ Arguably, this is not the appropriate conclusion to draw from that study. To make that assertion, all participants should have started with the same treatment algorithm, including nonpharmacologic strategies, and focused on nonopioid therapies. The opioid arm should have additionally been allowed a provision for opioids if needed after other therapies were exhausted; this arm should not have started with opioids, as what was done in that study.⁸ To date, there has not been a clinical trial that has addressed this most pertinent question of whether there is a place for opioids in treating OA.

In this issue of *The Journal of Rheumatology*, Vina, *et al* reported a cross-sectional observational study of 362 adults with knee and/or hip OA to better understand who is currently using opioids in this population.⁹ It is not a randomized clinical trial, but in the absence of such a study, this is the next best option. Comparing those who reported opioid use to those who did not report use, the pain score was higher (54.8 vs 46.8), there was a greater perception of medication benefit (OR 1.68, 95% CI 1.18–2.41), and a lesser perception of medication risk (OR 0.67, 95% CI 0.51–0.88). This means that people with more pain

See Perceptions and opioid use, page 1863

were the ones receiving opioids; they viewed opioids as more beneficial and as less risky compared to those who did not use opioids. This perspective lends to the significance of the findings of this study. Perhaps opioids are beneficial in a selected group of people with OA, supporting the decision by the American College of Rheumatology and the Arthritis Foundation to leave the prescription of opioids as an option in the treatment of OA.¹⁰ It is worth noting that it is the patient focus group that pushed for this particular point in the final version of the recommendations; they were knowledgeable about the opioid crisis and the risks and benefits of opioids, yet they expressed a strong concern that if there was a blanket “strongly against” recommendation for the use of opioids in OA, this would adversely affect the management of end-stage disease, particularly among those who cannot have arthroplasty (personal communication). Notably, in the study by Vina, *et al*,⁹ those in the opioid group were more likely to report having only “fair” or “poor health” compared to the nonopioid group (31.0% vs 13.7% and 7.0% vs 6.0%, respectively, $P < 0.001$) and had more comorbidities (mean 4.1 vs 3.2, $P < 0.001$). This highlights the real-world differential utilization of opioids in OA, potentially representing those who had poor health and thus were not candidates for arthroplasty. Additionally, those with less education, lower employment status, and lower household income were also more likely to use opioids in OA, suggesting that people who were less financially secure who could not afford the expense of an arthroplasty (direct and/or indirect expenses) were the ones who were preferentially using opioids.

In conclusion, my position is that there should be a place for opioids in treating OA. As clinicians, we need to be cognizant of the gravity and the challenges related to the opioid crisis, but we need to still remember our responsibility toward treating the patient sitting before us. Opioids should not be the first strategy used to manage OA. They should be reserved for those who have insufficient control of their pain after conservative alternatives have been exhausted. Shared decision making, considering factors such as patient comorbidities and financial constraints,

should be an integral part of the process in deciding who should be offered opioids. Clinical trials that can rigorously test these perspectives are needed.

REFERENCES

1. World Health Organization. Opioid overdose. [Internet. Accessed March 17, 2021.] Available from: www.who.int/news-room/fact-sheets/detail/opioid-overdose
2. Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for chronic pain—United States, 2016. *JAMA* 2016;315:1624-45.
3. Olsen Y. The CDC Guideline on opioid prescribing: rising to the challenge. *JAMA* 2016;315:1577-9.
4. Bohnert ASB, Guy GP Jr, Losby JL. Opioid prescribing in the United States before and after the Centers for Disease Control and Prevention's 2016 opioid guideline. *Ann Intern Med* 2018; 169:367-75.
5. Dowell D, Haegerich T, Chou R. No shortcuts to safer opioid prescribing. *N Engl J Med* 2019;380:2285-7.
6. Kroenke K, Alford DP, Argoff C, Canlas B, Covington E, Frank JW, et al. Challenges with implementing the centers for disease control and prevention opioid guideline: a consensus panel report. *Pain Med* 2019;20:724-35.
7. Cross M, Smith E, Hoy D, Nolte S, Ackerman I, Fransen M, et al. The global burden of hip and knee osteoarthritis: estimates from the Global Burden of Disease 2010 study. *Ann Rheum Dis* 2014;73:1323-30.
8. Krebs EE, Gravely A, Nugent S, Jensen AC, DeRonne B, Goldsmith ES, et al. Effect of opioid vs nonopioid medications on pain-related function in patients with chronic back pain or hip or knee osteoarthritis pain: the SPACE randomized clinical trial. *JAMA* 2018;319:872-82.
9. Vina ER, Quinones C, Hausmann LR, Ibrahim SA, Kwok CK. Association of patients' familiarity and perceptions of efficacy and risks with use of opioid medications in the management of osteoarthritis. *J Rheumatol* 2021;48:1863-70.
10. Kolasinski SL, Neogi T, Hochberg MC, Oatis C, Guyatt G, Block J, et al. 2019 American College of Rheumatology/Arthritis Foundation guideline for the management of osteoarthritis of the hand, hip, and knee. *Arthritis Rheumatol* 2020;72:220-33.