EDITORIAL

The CDC Guideline on Opioid Prescribing
Rising to the Challenge

Yngvild Olsen, MD, MPH

In 2014, nearly 20 000 deaths due to overdose of prescription opioids occurred in the United States.[1] That same year, more than 10 million people in the United States reported using prescription opioids for nonmedical reasons, and close to 2 million people older than 12 years met diagnostic criteria for a substance use disorder involving prescription opioids.[2] This is the highest number of individuals considered to have opioid addiction since statistics began to be collected in the late 19th century.[3] Four of 5 persons newly initiating heroin use now report starting with a prescription opioid, a near complete reversal since prior to 2000.[4] Despite multiple, laudable efforts across the country aimed at curbing the opioid epidemic, there seems to be little relief in sight.

Author Audio Interview at jama.com

Related articles

In the 1980s and 1990s, a body of evidence documented that patients commonly experience inadequately treated pain. Researchers found systemic health disparities in access to pain management.[5] National authorities, including the Federation of State Medical Boards, called on health care practitioners to pay greater attention to pain.[6] In 2000, the Joint Commission adopted pain as the "fifth vital sign,"[7] a well-intentioned (albeit simplistic) policy to increase awareness of and interventions for pain.

These efforts to treat pain more effectively coincided with relentless and misleading marketing of prescription opioids by manufacturers, who minimized the risks of misuse and addiction.[8] These efforts also coincided with the introduction of patient satisfaction surveys tied to physician performance and reimbursement in some areas, including the assessment of pain.

In retrospect, it is significant that this campaign occurred in the absence of substantial evidence for the long-term effectiveness of opioids in the treatment of persistent pain outside of active cancer and palliative care and without substantial training, understanding, and acknowledgment of addiction as a preventable, identifiable, and treatable disease.

Without strong evidence or sufficient training, clinicians had to rely on their best clinical judgment influenced by opinion, beliefs, values, and past experience. However, prescribers proved to be as vulnerable as patients to conflicting messages and judgmental attitudes. For chronic pain management with prescription opioids, the benefit-risk analysis over the past 2 decades became so distorted that it led some clinicians to either miss or dismiss the presence of addiction in their patients, avoid discussing the possibility of this diagnosis, or stereotype patients with addiction and discharge them from care.[9,10]

Once established, patterns of clinical care can be extraordinarily resistant to change. For instance, in 2012, US health care practitioners wrote more than 200 million prescriptions for opioids, double the number in 1998 and 10 million more than in 2008.[11] In addition, some evidence suggests that some physicians keep prescribing opioids to patients who have experienced serious harms such as overdose.[12] Furthermore, as illustrated in 2 research letters by Wunsch et al[13] and Baker et al,[14] respectively, in this issue of *JAMA*, patients are receiving more opioids than in the past for common surgical procedures[13] and from practitioners such as dentists who previously may have recommended nonopioid medication for procedures such as dental extractions.[14]

Using a database of health encounters of 14 million commercially insured adult patients, Wunsch et al[13] reported that 80% of 155 297 patients who underwent any of 4 low-risk surgical procedures (carpal tunnel release, laparoscopic cholecystectomy, inguinal hernia repair, knee arthroscopy) filled a prescription for any opioid. The percentage filling prescriptions increased for all 4 procedures during the study years. For example, 72.4% filled prescriptions after carpal tunnel release in 2004 compared with 76.1% in 2012.

Using a national database of deidentified Medicaid transactions from 2000 to 2010 for surgical dental extraction, Baker et al[14] found that 42% of 2 757 273 patients filled a prescription for an opioid medication within 7 days of extraction, with a median of 120 mg of morphine milligram equivalents (MME) dispensed per prescription (ie, representing 24 tablets of 5 mg of hydrocodone).

Multiple efforts to address clinical decision making for pain medications have failed to have a major effect. These include continuing medical education courses developed by the US Food and Drug Administration for long-acting opioids as part of a risk evaluation and mitigation strategy,[15] specialty-led guidelines on safe opioid prescribing,[16] action by some physician boards to require additional education about pain management,[17] state-level prescription monitoring programs, and others.

Given the national concern about the epidemic of overdose from prescription medication, the Centers for Disease Control and Prevention (CDC) has responded with an opioid prescribing guideline. The agency is the first at the federal level to provide practical guidance to clinicians on the role of prescription opioids for chronic pain outside of active cancer or palliative care. The CDC's final recommendations are pub-

lished in this issue of *JAMA*, along with contextual and evidentiary material.[18] Simultaneously, the CDC's full guideline with supplementary information is being published in the *Morbidity and Mortality Weekly Report*.[19]

The CDC's efforts to develop these recommendations are an example of the aphorism "no good deed goes unpunished." Critics attacked the agency for including individuals in early meetings who had expressed strong opinions about overprescribing, for not taking pain considerations seriously enough, and for venturing into an area outside of its expertise.[20] To its credit, CDC did not dismiss these concerns. The agency listened, undertaking a rigorous review and revision process that solicited input from as many stakeholders as possible over the last several months. The result is without question the most important guideline for primary care clinicians on prescribing opioids for chronic pain outside of active cancer and palliative care that exists today.

In the face of limited, low-quality evidence for the effectiveness of long-term chronic opioids, the CDC guidelines focus on practical ways primary care practitioners can minimize risks of overdose, misuse, and addiction from these medications. Many of the preventive recommendations will be familiar to clinicians from principles of good medication management: "Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate." (Recommendation 1) "When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when considering increasing dosage to 50 morphine milligram equivalents (MME) or more per day, and should avoid increasing dosage to 90 MME or more per day or carefully justify a decision to titrate dosage to 90 MME or more per day." (Recommendation 5)

Other recommendations may be less familiar to clinicians and are certainly not exclusive to primary care practitioners: "Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible." (Recommendation 11) **"**Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (> 50 MME/d), or concurrent benzodiazepine use, are present." (Recommendation 8)

Widespread adoption of the CDC's recommendations in clinical practice would help reverse the epidemic of opioid overprescribing. However, as the CDC alludes to, success depends on simultaneously addressing significant gaps in the health care system.

Despite the availability of more continuing education courses on safe prescribing than ever, substantial deficiencies in physician education and training about addiction remain. These result in physicians routinely dismissing patients from a practice without providing or referring them to effective care to address misuse or addiction. Education about substance use disorders and chronic pain management should start in medical school and continue through residency training in all patient-care specialties. The CDC and other federal agencies should convene a summit with the Association of American Medical Colleges and the Accreditation Council for Graduate Medical Education with the goal of incorporating such training into core curricula requirements for medical education and postgraduate training. For prescribers already in practice, Congress should empower the Department of Health and Human Services and other agencies to develop mandatory training modules for all practitioners as a condition of prescriptive authority for opioids.

There are also enormous gaps in reimbursement, both for chronic pain and for addiction treatment. Insurers should reimburse for safe and effective nonpharmacological interventions for both of these conditions. Of critical importance is adequate coverage by Medicare, Medicaid, and private insurance for medication-assisted treatment for opioid addiction, including methadone and buprenorphine. There needs to be widespread recognition that these effective treatments are not substitution of one addiction for another but rather are medications that, like insulin for diabetes mellitus, allow patients to live productively, managing their disease. This requires changing language associated with addiction, undoing discriminatory policies affecting those taking methadone or buprenorphine, and countering negative attitudes toward people with addiction.

There is an innovation gap, with few available care models that give primary care practitioners the time, resources, and support to care for patients with complex chronic pain at risk for or with addiction. Supporting the development and evaluation of such models should be a top priority. In addition, as is often the case, more research is needed. Although research will not help in the short-term, it is needed to improve how physicians prescribe opioids in the coming decades. Important questions to answer include how best to assess quality of pain medication prescribing, how to reduce stigma among physicians and patients, and how to effectively manage cooccurring chronic pain and addiction.

The CDC guideline for prescribing opioids for chronic pain is an important and essential step forward. With support from physicians across the country, as well as from policy makers at all levels, implementation of the recommendations in this guideline has the potential to improve and save many, many lives.

ARTICLE INFORMATION

Author Affiliation: Institutes for Behavior Resources Inc, Baltimore, Maryland.

Corresponding Author: Yngvild Olsen, MD, MPH, Institutes for Behavior Resources Inc, 2104 Maryland Ave, Baltimore, MD 21218 (yolsen@ibrinc.org).

Published Online: March 15, 2016. doi:10.1001/jama.2016.1910.

Conflict of Interest Disclosures: The author has completed and submitted the ICMJE Form for

Disclosure of Potential Conflicts of Interest. Dr Olsen reported receiving a salary from Institutes for Behavior Resources Inc for direct patient care of adults with opioid addiction.

REFERENCES

1. Overdose death rates. National Institute on Drug Abuse. http://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates. Accessed February 29, 2016.

2. Behavioral health trends in the United States: results from the 2014 National Survey on Drug Use and Health. Substance Abuse and Mental Health Services Administration. http://www.samhsa.gov/data/sites/default/files/NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf. Accessed February 29, 2016.

3. Kandall S. Women and addiction in the United States, 1850 to 1920. In: Wetherington CL, Roman AB, eds. *Drug Addiction Research and the Health of Women*. Washington, CD: US Dept of Health and Human Services, National Institutes of Health, National Institute on Drug Abuse. 1998:36.

4. Cicero TJ, Ellis MS, Surratt HL, Kurtz SP. The changing face of heroin use in the United States: a retrospective analysis of the past 50 years. *JAMA Psychiatry*. 2014;71(7):821-826.

5. Cleeland CS, Gonin R, Baez L, Loehrer P, Pandya KJ. Pain and treatment of pain in minority patients with cancer: the Eastern Cooperative Oncology Group Minority Outpatient Pain Study. *Ann Intern Med*. 1997;127(9):813-816.

6. Joranson DE, Gilson AM, Dahl JL, Haddox JD. Pain management, controlled substances, and state medical board policy: a decade of change. *J Pain Symptom Manage*. 2002;23(2):138-147.

7. Phillips DM; Joint Commission on Accreditation of Healthcare Organizations. JCAHO pain management standards are unveiled. *JAMA*. 2000;284(4):428-429.

8. Kolodny A, Courtwright DT, Hwang CS, et al. The prescription opioid and heroin crisis: a public health approach to an epidemic of addiction. *Annu Rev Public Health*. 2015;36:559-574.

9. Aswegan AL. Our ethical duty is to relieve pain and suffering. *ACEP News*. American College of Emergency Physicians. http://www.acep.org/Clinical---Practice-Management/Our-Ethical-Duty-Is-to-Relieve-Pain-and-Suffering. Accessed February 29, 2016.

10. Naliboff BD, Wu SM, Pham Q. Clinical considerations in the treatment of chronic pain with opiates. *J Clin Psychol*. 2006;62(11):1397-1408.

11. Volkow ND. America's Addiction to Opioids: Heroin and Prescription Drug Abuse. https://www.drugabuse.gov/about-nida/legislative-activities/testimony-to-congress/2016/americas-addiction-to-opioids-heroin-prescription-drug-abuse. Accessed February 29, 2016.

12. Dunn KM, Saunders KW, Rutter CM, et al. Opioid prescriptions for chronic pain and overdose: a cohort study. *Ann Intern Med*. 2010;152(2):85-92.

13. Wunsch H, Wijeysundera DN, Passarella MA, Neuman MD. Opioids prescribed after low-risk surgical procedures in the United States, 2004-2012. *JAMA*. doi:10.1001/jama.2016.0130.

14. Baker JA, Avorn J, Levin R, Bateman BT. Opioid prescribing after surgical extraction of teeth in Medicaid patients, 2000-2010. *JAMA*. doi:10.1001/jama.2015.19058.

15. FDA introduces new safety measures for extended-release and long-acting opioid medications [news release, July 9, 2012]. US Food and Drug Administration. http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm310870.htm. Accessed February 29, 2016.

16. Cantrill SV, Brown MD, Carlisle RJ, et al; American College of Emergency Physicians Opioid Guideline Writing Panel. Clinical policy: critical issues in the prescribing of opioids for adult patients in the emergency department. *Ann Emerg Med*. 2012;60(4):499-525.

17. Currently available pain management and end-of-life classes. The Medical Board of California. http://www.mbc.ca.gov/Licensees/Continuing_Education/Pain_Management_Classes.aspx. Accessed March 1, 2016.

18. Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for chronic pain—United States, 2016. *JAMA*. doi:10.1001/jama.2016.1464.

19. Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for chronic pain—United States, 2016. *MMWR Recomm Rep*. 2016;65(RR-1):1-49.

20. Draft of CDC's new prescribing guidelines stirs debate. All Things Considered, National Public Radio. http://www.npr.org/2015/12/29/461409296/draft-of-cdcs-new-prescribing-guidelines-stirs-debate. Accessed March 1, 2016.