Addressing the Opioid Epidemic

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After alcohol intoxication, opioids are the most common cause of poisoning in patients presenting to North American emergency departments.1 Most opioids misused by patients originate from prescription medication. Most patients who overdose on prescription opioids are taking their medications differently than prescribed or are using opioids prescribed to someone else. These 2 main types of nonmedical opioid use represent a major cause of morbidity and mortality. Some individuals who misuse opioids are seeking euphoric effects, but others have developed dependence through chronic opioid use and are simply trying to avoid opioid withdrawal. Opioid-related harm has now reached epidemic levels: emergency department visits for nonmedical use of prescription opioids more than doubled from 2004 to 2011, accounting for an estimated 488 000 visits in 2011.1 Deaths have more than tripled since 1999, with an estimated 16 235 deaths attributable to prescription opioids in 2013.2,3

In this issue of JAMA, the study by Han et al4 examined the current scope of the opioid epidemic in the United States. Using data from nearly half a million respondents to the annual National Survey on Drug Use and Health (NSDUH), the authors found that overall trends in self-reported nonmedical use of prescription opioids decreased from 5.4% to 4.9% over an 11-year period, including a decline in new users of opioids, from 1% in 2003 to 0.6% in 2013. Although this overall finding of a reduction in nonmedical use of prescription opioids is encouraging, the study also reported increases in the prevalence of prescription opioid use disorders (abuse and addiction) and increases in the prevalence of opioid-associated mortality, using data from the National Vital Statistics System’s Multiple Cause of Death Files. The authors also reported an increased prevalence of frequent opioid use (>100 days/year) and highly frequent use (>200 days/year), as well as a greater prevalence of prescription opioid use disorders in patients with major depressive episodes (MDEs) than in patients without them. The findings of Han et al suggest that more patients are experiencing an inexorable progression from initial opioid use to frequent use, highly frequent use, or an opioid use disorder.

Another report in this issue of JAMA by Saloner and Kharthikeyan addressed a related question: Do patients with nonmedical use of opioids access treatment?5 Among individuals identified in NSDUH as having an opioid use disorder, the authors examined utilization of substance abuse treatment during the same period as Han et al (2004-2013). Adjusted rates of individuals with opioid use disorders receiving treatment were low and essentially unchanged during the reporting period (18.8% in 2004-2008 to 19.7% in 2009-2013). Saloner and Kharthikeyan also found that the number of settings visited for treatment (ie, inpatient services, outpatient clinics, physicians’ offices) increased, from 2.8 to 3.3, including receipt of treatment in office settings (from 25.1% to 34.8%) where use of buprenorphine is most likely. The authors cannot explain why so many patients apparently did not seek treatment, such as whether it is not available, not affordable, or not of interest. Furthermore, the outcomes of treatment cannot be measured with these data, but other studies have reported that the long-term effectiveness of most such therapies is modest.4

Saloner and Kharthikeyan also found that over time, survey respondents were older and were less likely to have private health insurance. Despite the Mental Health Parity and Addiction Equity Act of 2008,7 which mandated that insurers offer mental health and addiction benefits comparable with their medical-surgical benefits, an increase in treatment opportunities was not observed in the latter part of the study period, after the act was implemented. This suggests that ability to pay most likely was not the primary factor in the decision to forgo treatment but does not clarify the roles of access to, or interest in, treatment for an opioid use disorder.

Prescribing of opioid analgesics, particularly for chronic pain, appears to be a main factor in the majority of nonmedical use. Based on other data available in the NSDUH, prescribers are, directly or indirectly, the source of most misused opioids.8 An estimated 53% of nonmedical users reported obtaining prescription opioids from a friend or relative, 81% of whom received their drug from a physician. It is unclear whether these prescriptions were issued for therapeutic purposes or originated from unscrupulous prescribers (ie, “pill mills”); regardless, the source of opioid use and misuse is often a seemingly legitimate prescription.

There is little evidence for long-term benefit from opioid therapy for most types of chronic pain.9 It remains unclear why this practice of opioid prescribing continues despite recommendations to the contrary.10,11 New opioid medications, many of them with tamper-resistant formulations, continue to be marketed despite the lack of evidence that these preparations reduce the risk of addiction.12 More than 10% of patients who initiate treatment with opioids will likely progress to chronic use, defined as ongoing treatment for more than 3 months.12 Nearly all patients treated with long-term opioid therapy develop tolerance and dependence to varying degrees, about 25% become nonmedical users, and 10% develop features suggestive of addiction.13 These are sobering percentages in light of the millions of patients prescribed these drugs every year.14 Consequently, for the many patients who need treatment for addiction or complications of substance misuse, there are often significant barriers to obtaining care.6 Dependence, addiction, and dose escalation resulting from tolerance make discontinuing opioids difficult. Many patients understandably perceive they need ongoing opioid analgesic therapy because, when the drugs are discontinued, an unpleasant withdrawal syndrome with associated pain ensues. Patients quickly learn that resump-
tion of opioids remedies the symptoms of withdrawal, reinforcing the perception that chronic opioid therapy is beneficial.

Another consequence of the epidemic of prescription opioid abuse is the substitution of heroin for prescription opioids. In the past, most heroin users began with heroin, but many current users migrated to heroin from nonmedical use of prescription opioids. A modern-day scenario is that of an individual who develops an opioid use disorder after receiving a prescription for an opioid or after experimenting with an opioid obtained without a prescription. Then, when access to prescription opioids is lost, the user turns to heroin, which is relatively inexpensive and in many areas easy to obtain. Heroin can be smoked or inhaled, but with continued use and increased opioid tolerance, many heroin users ultimately transition to injection, a practice most users would have considered unimaginable when they first began nonmedical use of prescription opioids.

The slight decline in opioid initiation reported by Han et al (approximately 0.4% over 10 years) may represent a hopeful finding. One logical way to reduce the prevalence of opioid use disorders is to reduce the incidence of patients using opioids for the first time, to the extent that this is possible within the bounds of good medical care. Secondary prevention efforts to reduce harm in existing opioid users, such as prescription drug monitoring programs and bystander naloxone, are important, but controlling the increase in opioid and heroin abuse necessarily involves reducing the number of new opioid initiatives. To address the need for primary and secondary prevention of opioid use disorders, the Centers for Disease Control and Prevention recently granted 16 states a total of $20 million to study prevention strategies aimed at fostering safe prescribing practices, with the goal of reducing the availability of prescription opioids, while adequately treating pain, and hopefully decreasing the harm associated with their misuse.

If the observed decrease in rates of new opioid users reported by Han et al is sustained, understanding the reasons behind this change is important. These are likely multifactorial and may include the use of prescribing guidelines for chronic pain, rationalizing expectations of physicians and patients for pain control and functional outcome, media attention on the consequences of addiction, and regulatory and legal efforts. It is encouraging that the culture around prescription opioids is starting to change, especially when considering the marketing of a plethora of new opioids for the treatment of chronic pain, none of which has been shown to be safe and effective over the long term.

The chronic, relapsing nature of opioid addiction means most patients are never “cured,” and the best outcome is long-term recovery. The lifelong implications of this disease far outweigh the limited benefits of opioids in the treatment of chronic pain, and in many cases the risks inherent in the treatment of acute pain with opioids. The encouraging finding of declining opioid initiation rates should be tempered by the increasing rates of nonmedical opioid use disorders and the limited utilization of treatment programs. Although multifaceted approaches are needed to successfully address the opioid epidemic, an important step is to start at the beginning and keep opioid-naive patients opioid naive.

ARTICLE INFORMATION

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