

VIEWPOINT

Limiting the Duration of Opioid Prescriptions

Balancing Excessive Prescribing and the Effective Treatment of Pain

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Prescription opioid misuse is a major public health issue in the United States. Since the late 1990s, sales of prescription opioids have risen 4-fold, and the rates of admissions for substance use treatment and of death from opioid overdose have grown proportionately.¹ In response, training programs about the appropriate prescribing of opioid therapy have been developed, prescription monitoring programs implemented, and access to naloxone facilitated to reduce deaths among people who overdose. In general, these strategies focus on detecting and preventing harm in those who are already dependent on or misusing opioids. Although the impact of many of these programs is uncertain, the opioid epidemic continues to grow.

A more radical policy approach is to restrict the amount of opioids in first-time prescriptions to just a few days' supply, perhaps 3 to 7 days. Recently, this strategy attracted much attention as a central component of legislation from the Governor of Massachusetts, Charlie Baker, which he signed into law on March 14, 2016.² As part of a package of related interventions, the new Massachusetts law limits first-time prescriptions for opioids to 7 days, with specific exceptions, such as prescriptions for cancer pain or palliative care. In New York City, many hospital emergency departments have adopted voluntary guidelines that call for practitioners to prescribe no more than 3 days' supply of short-acting opioids. Other states have imposed limits on the supply and dose of prescribed opioids, although these are not nearly as restrictive as the limits being implemented in Massachusetts.³

Mandated limits on opioid prescriptions for acute pain could promote safer use. First, it would reduce the exposure of first-time users to these addictive substances following episodes of acute pain. For some patients who come to misuse opioids, their euphoria or sedating effects are initially experienced in the context of routine medical care. There are countless anecdotes of patients who take opioids for a minor orthopedic injury or some other acute pain condition and then go on to use prescription opioids nonmedically. A recent population-based study suggested that 6% of incident opioid users progress to long-term use.⁴ Another study found that patients who received opioids following minor surgery were 44% more likely to become long-term opioid users compared to those who did not.⁵ Decreasing the initial amount dispensed may lessen the risk that patients develop an affinity for these drugs and transition to chronic use or misuse.

Second, mandated limits would more clearly align the amount of opioid prescribed with the amount actually needed and thereby substantially reduce the amount of

unused opioid medication introduced into the community. Physicians often write prescriptions for opioids that are greatly in excess of what patients actually take for acute pain, and patients often keep the leftover medication. For example, a survey of adults in Utah estimated that in the previous 12 months, 1 in 5 state residents were prescribed an opioid medication.⁶ Of those who filled a prescription for an opioid, 72% had leftover pills and nearly three-quarters of those with leftover pills kept them. This equates to approximately 10% of the adult population of Utah who held on to leftover opioids over just a 1-year period. Leftover medications are an important source of opioids that are misused or diverted.⁷

Restricting the amount of opioids that can be prescribed will not address all of the contributing factors to the opioid epidemic, such as misuse or diversion among patient who are already chronically using opioids. It is also uncertain how many pills patients need to take to initiate an opioid use disorder. Perhaps clinicians should rethink the indications for opioids in any quantity, and reserve the medications for only truly severe pain.

Legislating limits on opioid prescriptions would create important challenges. The effective treatment of pain should not be compromised, and clinicians should not be excessively burdened. First, laws or regulations would need to carve out exceptions for specific clinical situations. Enumerating these situations in a way that is narrow enough not to undercut the intended impact of the policy, but broad enough to encompass the varied clinical situations where such prescribing may be appropriate, will not be easy. There are numerous conditions for which the need for opioids might go beyond a few days' supply, such as following major surgery, severe traumatic injury, or extensive burns. The task of defining these conditions is complicated by the lack of data regarding the opioid requirements associated with many conditions. In the absence of such data, public health officials would need to work with patients, clinicians, and other experts to carefully draw up the list of exceptions. Additionally, limits should not apply for the treatment of cancer pain or for hospice and palliative care.

Second, hospitals and practices would have to evolve systems to facilitate prescribing additional opioids after the initial limited supply is exhausted. A rationale that is often provided for prescribing a large amount of opioids in the setting of acute pain is to avoid the need for return visits for additional medication. With the institution of mandated restrictive prescribing, some patients may be more likely to ask for refills. Approaches would need to be developed to assess the need for additional medications and to provide another prescrip-

tion in a timely manner that also does not lead to a marked increase in use of health care resources. The burden may be particularly great for patients in the worst pain, those with the greatest barriers to access, or clinicians who are least equipped to handle the increased volume of care or its provision on weekends and holidays. Since 2010, federal regulations have allowed for the electronic prescribing of controlled substances (including opioids) using Drug Enforcement Agency-compliant systems, but only a small minority of providers are doing so.⁸ Speeding the adoption of these systems could allow practitioners to carefully assess the need for additional opioids over the phone and then e-prescribe additional opioids, when indicated. For those patients who cannot be adequately managed remotely, hospitals and practices may need to establish dedicated clinics in which such patients can be rapidly evaluated.

Third, to ensure that limiting opioid prescriptions does not lead to poor control of pain, implementation of these restrictions should be coupled with efforts to optimize the use of other adjunctive or alternative approaches to treating acute pain, including both nonopioid analgesics, such as acetaminophen and nonsteroidal

anti-inflammatory medications, as well as nonpharmacologic approaches. For many conditions, these therapies can be effective in treating ongoing pain once the limited supply of opioids is exhausted. Programs that facilitate physician and patient education in the appropriate use of nonopioid analgesics and nonpharmacologic treatments for pain should be central components of policies aimed at restricting opioid prescribing.

In conclusion, although mandated limits on opioid prescriptions for acute pain would not address all aspects of the epidemic, such limits are likely to be an essential part of the solution. The sixth recommendation of the March 2016 guidelines from the Centers for Disease Control and Prevention on prescribing opioids for chronic pain has started this process by providing specific advice to limit the duration of opioid prescriptions.⁹ It states, in part, "When opioids are used for acute pain,... [t]hree days or less will often be sufficient; 7 days will rarely be needed."⁹ Policies that mandate restrictive prescribing of opioids should balance the effective treatment of pain with reducing societal harm from these dangerous and addictive medications.

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REFERENCES

1. Centers for Disease Control and Prevention (CDC). Vital signs: overdoses of prescription opioid

pain relievers—United States, 1999-2008. *MMWR Morb Mortal Wkly Rep.* 2011;60(43):1487-1492.

2. An Act Relative to Substance Use Treatment, Education, and Prevention. HR 4056. 189th Leg (Ma 2016). <https://malegislature.gov/Bills/189/House/H4056>. Accessed March 30, 2016.

3. Centers for Disease Control and Prevention. Prescription Drug Time and Dosage Limit Laws. http://www.cdc.gov/php/docs/menu_prescriptionlimits.pdf. Accessed March 30, 2016.

4. Hooten WM, St Sauver JL, McGree ME, Jacobson DJ, Warner DO. Incidence and risk factors for progression from short-term to episodic or long-term opioid prescribing: a population-based study. *Mayo Clin Proc.* 2015;90(7):850-856.

5. Alam A, Gomes T, Zheng H, Mamdani MM, Juurlink DN, Bell CM. Long-term analgesic use after low-risk surgery: a retrospective cohort study. *Arch Intern Med.* 2012;172(5):425-430.

6. Centers for Disease Control and Prevention (CDC). Adult use of prescription opioid pain medications—Utah, 2008. *MMWR Morb Mortal Wkly Rep.* 2010;59(6):153-157.

7. McCabe SE, West BT, Boyd CJ. Leftover prescription opioids and nonmedical use among high school seniors: a multi-cohort national study. *J Adolesc Health.* 2013;52(4):480-485.

8. Hufstader Gabriel M, Yang Y, Vaidya V, Wilkins TL. Adoption of electronic prescribing for controlled substances among providers and pharmacies. *Am J Manag Care.* 2014;20(11 Spec No. 17):SP541-SP546.

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