It is now clear that a generation of patients seeking emergency care was exposed to potential harm from opioid prescriptions. Emergency departments (EDs) were always—and remain—a relatively small source of opioids. Regardless, opioid-naive patients may develop high-risk or persistent use even with a single prescription after an ED visit. Curtailing ED prescriptions became a target for clinicians and policy makers seeking to mitigate the opioid epidemic.

In this systematic review and meta-analysis in *JAMA Network Open*, Daoust et al find that interventions to reduce ED opioid prescribing have generally succeeded. Most studies included in their review demonstrate reductions in the number of patients who receive opioid prescriptions. Among the studies eligible for meta-analysis, interventions were associated with a statistically significant and clinically meaningful decrease in the rate of opioid prescriptions. The studies included in this review exhibit wide variation in strategies to limit prescribing; the authors examine differences between interventions across 5 distinct though somewhat heterogeneous categories.

During the decade in which these studies were performed, the baseline rate of ED opioid prescribing has fallen across the US. The Centers for Disease Control and Prevention found that 14.6% of ED visits resulted in an opioid prescription in 2016 compared with a peak of 21.5% in 2010; this rate is likely to be even lower with more recent data. Opioids are most often prescribed to patients with acute pain due to common illnesses, including dental pain, urolithiasis, and fractures. Clinicians have also altered their choice of analgesics, with an increase in the proportion of prescriptions for opioids perceived to be less potent (eg tramadol hydrochloride).

An important question has emerged: Do any patients discharged from the ED need an opioid prescription? If the answer is not zero, then what is the right number, and for which conditions? An expanding body of evidence suggests that opioids are no more effective in addressing pain than other analgesics, such as nonsteroidal anti-inflammatory drugs, for common self-limited conditions typically treated in the ED. The list of conditions for which short courses of opioids are appropriate has dwindled. There are likely small populations of patients in the ED who still require short-term opioids, such as patients with severe pain or contraindications to alternative therapies. Preserving access to ED prescribing is also needed for patients with cancer or other chronically painful conditions who require prescriptions to bridge gaps in outpatient treatment.

Daoust et al provide evidence that we have effective strategies to reduce ED opioid prescribing and accelerate the declining national trend. The new challenge is to optimize and tailor prescriptions for patients and scenarios in which opioids are indicated—that is, determining the right quantity for the right patients. The path forward must incorporate patient-centered approaches rather than to exclusively target prescriber behavior. A striking finding from this meta-analysis is that none of the 63 studies reported the level of pain or ability to manage pain for patients. Clinicians may fear that focusing on patient satisfaction invariably leads to more opioid prescriptions; however, responsible strategies that incorporate shared decision-making for select patients and conditions may avoid past mistakes.

Technology may improve our ability to engage with patients and inform a learning health system approach in which we determine which patients with acute pain require opioids, and for what duration. For example, text messaging has been used to collect data on the number of opioids consumed by patients after surgical procedures, combined with assessments of function and pain.
level. Similar approaches may be used to characterize episodes of acute pain after ED visits and potentially tailor treatment plans at the patient level. Importantly, future interventions must also consider implications for equity, given well-documented racial disparities in pain treatment. Policies restricting ED opioid prescribing may unfairly limit access to treatment for patients who have challenges accessing other care settings.

In this meta-analysis, interventions were associated with greater success in reducing the rate of opioid prescribing than reducing the quantity of opioids prescribed. One interpretation of this finding is that interventions made prescribers more selective, but once determining that opioids were indicated, they reverted to standard quantities of medications. Evidence suggests that the length of prescriptions influences the long-term risk of persistent use. This finding reinforces the need for more evidence to determine the right quantity of medication prescribed.

Daoust et al also demonstrate differences in outcomes between intervention categories. Interventions classified as education, policies, and guidelines as well as peer-provider comparison categories demonstrated greater reduction in the rate of opioid prescribing as compared with prescription drug monitoring program or state law interventions. Another surprising finding was that interventions to adjust default quantities in the electronic medical record were not effective in aggregate, given demonstrated effectiveness in non-ED settings. This finding again underscores the importance of being able to set defaults appropriately to anticipated patient need and vary defaults by conditions or patient characteristics. Overall, caution must accompany interpretation of these comparisons by category. The studies included in each category demonstrate a high level of heterogeneity in intervention strategy. The large differences in the approach, goals, and design of interventions within categories developed for the meta-analysis limit the interpretation of the relative effectiveness across categories.

To some extent, implementation has outstripped the evidence regarding opioid prescribing for acute pain. Most US states have enacted limits for either the duration or dosage of new prescriptions. Payers, including Medicare, have also limited the duration of new prescriptions that they will reimburse. The challenge for future interventions will be to mitigate the harms of overexposure to opioids for individual patients and communities but also permit patient-centered nuanced care and judicious prescribing of opioids. Although prescribing rates have fallen for the past decade, overdose rates have accelerated, suggesting that the solution of reduced prescribing may not, by itself, resolve the overdose crisis.

In conclusion, the meta-analysis by Daoust et al summarizes the significant progress made during the past decade to reduce opioid prescriptions for patients discharged from the ED. Ensuring that opioids are prescribed appropriately should continue to be a priority for every ED. However, the goal for the next 10 years must shift. Clinicians, health systems, and policy makers should seek to optimize opioid prescribing and incorporate patient perspectives. Furthermore, all EDs should be able to prescribe buprenorphine hydrochloride, an effective treatment for opioid use disorder, and provide naloxone hydrochloride for overdose prevention. Preventing unnecessary exposure to opioids is a worthy goal, but any hope to end the opioid epidemic demands increased access to effective treatment for opioid use disorder.
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**REFERENCES**


