Opportunities for Prevention and Intervention of Opioid Overdose in the Emergency Department

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0196-0644/$-see front matter

https://doi.org/10.1016/j.annemergmed.2018.01.052

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[Ann Emerg Med. 2018;71:688-690.]

Consider "Jane," a 30-year-old female patient brought in by emergency medical services (EMS) to the emergency department (ED), reflecting just one of more than 100,000 opioid overdose patients treated in EDs each year. Naloxone, an opioid antagonist and overdose reversal drug, was administered in the field by EMS; however, additional rounds of naloxone were required in the ED because of high opioid potency. Once she was stabilized, a quick review of her chart revealed several recent visits for opioid-related overdoses. A review of her history revealed that she was prescribed opioids initially in the ED 5 years earlier after sustaining minor injuries in a motor vehicle crash. She began misusing prescription opioids during the following year, receiving prescriptions from multiple providers in primary care clinics and EDs. Yet, because a check of the state's prescription drug monitoring program was not completed before any prescription, her use of multiple providers and high dosages was not identified, and opioids continued to be prescribed in different clinical settings for pain management. Soon thereafter, Jane initiated heroin use and presented to the ED several times with cellulitis from injection drug use, as well as after an overdose of prescription and illicit opioids. Each time, she was discharged without a referral to substance use treatment or without a naloxone kit.

Jane's hypothetical story, although based on actual cases treated in the ED, reflects just one of many cases that continue to be on the increase. Emergency physicians, as front-line providers, without question save lives by reversing opioid overdoses, but they also have a unique opportunity to engage in prevention of a future overdose, particularly for patients who may not have other contact with the health care system. A Centers for Disease Control and Prevention (CDC) Vital Signs report has revealed that from July 2016 to September 2017, across 52 jurisdictions in 45 states, there were more than 140,000 suspected opioid-involved overdose ED visits, with a nearly 30% increase during the period.[1] Increases were observed across both sexes (30% in men and 24% in women) and all age groups, with those aged 35 to 54 years representing the largest increase (36%). All regions across the United States experienced increases, but the largest increases were observed in the Midwest (70%), West (40%), and the Northeast (21%). Across 16 states with more geographically specific data available, there was a 35% increase, with continued worsening of overdose morbidity through 2017. All urbanization levels experienced increases over the time period, with significant increases in the largest cities (54%). The report relied on syndromic surveillance; that is, an approach in which near real-time data from EDs were shared and analyzed. Syndromic surveillance offers rapid data that can be used to facilitate public health action more quickly. The CDC Vital Signs report highlighted the need to better detect and respond to spikes in overdoses and to coordinate a systems-level response in communities, such as health alerts and advisories to address the ongoing opioid overdose epidemic.

The CDC Vital Signs report signaled that the ED is a critical entry point for primary and secondary prevention of opioid overdose. Although primary care physicians account for more than half of opioid prescriptions in the United States, prescribing practices in the ED can result in patients transitioning from use for acute pain to long-term use. In a recent report, Jeffery et al[2] estimated that approximately 11% to 17% of opioid prescriptions for opioid-naive patients outside of hospice and cancer treatment originated from EDs. Between 1% and 6% of opioid-naive patients (those not receiving an opioid prescription in the previous 6 months) progressed to long-term use after newly receiving an opioid prescription in the ED for acute pain. Patients who were prescribed opioids in ways inconsistent with evidence-based recommendations (eg, prescription for more than a 7-day supply, high dosage, long-acting opioid) were more likely to progress to long-term use. The American College of Emergency Physicians (ACEP) recommends that physicians ascertain whether nonopioid therapies are adequate; if opioids are prescribed, physicians

https://www.annemergmed.com/article/S0196-0644(18)30079-9/fulltext

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Supervising editor: Michael L. Callaham, MD

Authorship: All authors attest to meeting the four ICMJE.org authorship criteria: (1) Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND (2) Drafting the work or revising it critically for important intellectual content; AND (3) Final approval of the version to be published; AND (4) Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Funding and support: By *Annals* policy, all authors are required to disclose any and all commercial, financial, and other relationships in any way related to the subject of this article as per ICMJE conflict of interest guidelines (see www.icmje.org). The authors have stated that no such relationships exist.

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