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Controversy

A changing landscape of opioid prescribing in emergency medicine

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ABSTRACT

Emergency Medicine providers are grappling with the dual challenges of adequately treating pain while avoiding the risks associated with opioid pain relievers. The aggressive treatment of pain with opioids for the last three decades has resulted in an epidemic of opioid use disorder and opioid related mortality. This editorial discusses the findings in a study of emergency department (ED) opioid prescribing by Yang et al. and explores the changing landscape of opioid prescribing in emergency medicine. We specifically discuss risks associated with opioid prescribing, strategies to reduce risks while improving pain management, the role of advanced practice providers in ED opioid prescribing, and the importance of further education on opioid sparing pain management strategies.

On the frontlines of healthcare delivery, emergency medicine providers grapple with the most challenging problems that impact our communities. Front and center in the minds of many emergency providers (EPs) are the increasing challenges of adequately treating pain and preventing opioid use disorder. An estimated 20% of Americans reported having pain on most days or every day in a 2016 survey [1]. While there is limited data on the prevalence of pain over time, there is evidence that low back pain has been increasing in the US [2,3]. With an aging population and increasing chronic disease, the prevalence of chronic pain is likely to rise. Since the 1990s, there has been a cultural change to treat chronic noncancer pain more aggressively with opioids and this more aggressive treatment has resulted in an epidemic of opioid use disorder and opioid related mortality with little evidence for long-term improvement in the function or pain of patients with chronic noncancer pain [4]. In addition to these challenges, emergency departments across the country are under scrutiny to lower costs and increase efficiencies [5]. As a result, there are pressures on EPs to treat pain effectively and efficiently and advanced practice provider (APPs) are playing a larger role in the provision of care in emergency departments (EDs).

A study by Yang et al. (2018) in this issue examines emergency provider prescribing in the National Hospital Ambulatory Care Survey and reveals a snapshot of opioid prescribing among Emergency Departments. Interestingly, the most common diagnosis for which a patient received an opioid was an injury related complaint excluding fracture, measured at 20.5% of all ED opioid prescribing in this dataset. This measure did not distinguish between opioids given in the emergency department versus prescribed at discharge but does reveal an area of pain complaints that are amenable to opioid sparing interventions. Providers may view a sprain or strain that is reported as severe as requiring opioids to meet patient expectations. However, extremity strains and sprains can often be effectively managed with acetaminophen, NSAIDS, and other adjunctive therapies [6]. The introduction of opioids early in the treatment process may bias the patient encounter with little evidence for improved outcomes. Additionally, there is concern that exogenous opioids may suppress the brains own natural endorphin release and decrease opioid receptor responsiveness to endorphins, prolonging the pain experience [6,7]. The early use of opioids without attempting opioid sparing multimodal therapy, prioritizes the possibility of more immediate pain relief at the potential cost of a prolonged pain and recovery. A recent study examining alternatives to opioids showed significant reduction in opioid utilization across an ED population while maintaining effective pain management and patient satisfaction [7]. There is a significant opportunity in EDs to continue to treat pain aggressively while sparing the harmful effects of early opioid intervention in patients presenting with pain complaints.

The Yang et al. [13] study also highlights the changing landscape of emergency medicine and prescribing among our providers. The authors describe an increasing role of APPs in prescribing of opioids in the emergency department from 2005 to 2015. The proportion of opioids prescribed by emergency physicians alone decreased slightly and APPs saw a significant increase in opioid prescribing related visits, with visits seen by an NP alone nearly doubling during the study period. Interestingly, Yang et al. also identified that APPs and physicians served different populations with APPs prescribing opioids more frequently for low

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acuity visits such as dental pain and injury related pain and physicians prescribing more frequently for complex conditions. This reflects the current role of APPs in many emergency departments, caring for a higher percentage of lower acuity patients while allowing physicians to focus more resources on the care of complex patients. As APP utilization in EDs continues to increase, and particularly in the management of lower acuity visits, they must continue to be included as a central player in development of continuing education and departmental protocols on opioid sparing pain management.

Education programs for current and future emergency providers must continue to expand knowledge strategies for management of pain and substance use disorders. The culture of aggressively treating a majority of moderate to severe pain complaints with opioids has resulted in associated morbidity and mortality for susceptible patients and begs for a better approach. The fundamental problem with opioids is their potential to alter the function of neural pathways critical to reward and motivation resulting in opioid use disorder [8]. There are risk factors associated with opioid use disorder that can be screened for among ED patients and EPs should weigh these risks each time they consider using an opioid [9]. Epidemiological data suggests the longer the duration of an opioid prescription in an opioid naive patient the greater the risk the patient will have long term dependency on opioids [10]. For this reason, a better strategy is to keep brains opioid naive while aggressively managing pain by targeting multiple sites of pain transmission with therapies that have low risk for dependency or addiction [11]. When choosing to prescribe opioids for severe pain, providers can reduce risk by using the lowest effective dose for the shortest effective duration in combination with other multimodal therapies. An even greater challenge is the management of patients with chronic pain and/or opioid dependency. Further education is needed on the concepts of pain centralization and tools that EPs can use to manage chronic pain in the ED. Additionally, opioid dependency presents its own unique challenges in the management of acute and chronic pain. Providers must receive education on how to adequately manage withdrawal hyperalgesia, opioid induced hyperalgesia, and exacerbations of pain in the opioid dependent patient. Institutions responsible for the training and education of physicians and APPs should continue to improve their curriculums and require continuing medical education to include the latest science on pain, opioids, and substance use disorders.

While opioids can add effective short-term pain relief in many patients, the longer-term outcomes are questionable and the risk for harm is significant. We must be vigilant about favoring short term outcomes over long term health when developing pain management plans in the ED. There is reason to be optimistic. US spending on opioids showed a steeper decline in 2017 than any time since the peak of prescribing in 2011 [12]. As we continue to limit our opioid prescribing, we must not lose sight of providing adequate analgesia for our patients and helping those with opioid dependence or opioid use disorder with appropriate treatments. If we can achieve equal pain relief with opioid sparing modalities, this should be our goal. Fostering this culture among all providers is critical to decreasing the harms we have realized with our dependence on opioids for pain management.

For resources on opioid sparing pain management and education on chronic pain, please see these resources:

ACEP EQUAL Opioids Toolkit: https://www.acep.org/administration/quality/equal/e-qual-opioid-initiative/e-qual-opioid-toolkit/

CDC Alternatives for Chronic Pain: https://www.cdc.gov/drugoverdose/pdf/nonopioid_treatments-a.pdf

Provider Clinical Support System Treating Chronic Pain Series: https://pcssnow.org/education-training/treating-chronic-pain-core-curriculum/

References

[1] Dahlhamer J. Prevalence of chronic pain and high-impact chronic pain among adults — United States, 2016. MMWR Morb Mortal Wkly Rep 2018;67. https://doi.org/10.15585/mmwr.mm6736a2.
[2] Henschke N, Kamper SJ, Maher CG. The epidemiology and economic consequences of pain. Mayo Clin Proc 2015;90(1):139–47. https://doi.org/10.1016/j.mayocp.2014.09.010.
[3] Freburger JK, Holmes GM, Agans RP, et al. The rising prevalence of chronic low back pain. Arch Intern Med 2009;169(3):251–8. https://doi.org/10.1001/archinternmed.2008.543.
[4] Rummans TA, Burton MC, Dawson NL. How good intentions contributed to bad outcomes: the opioid crisis. Mayo Clin Proc 2018;93(3):344–50. https://doi.org/10.1016/j.mayocp.2017.12.020.
[5] Kang H, Bastian ND, Riordan JP. Evaluating the relationship between productivity and quality in emergency departments. J Healthc Eng 2017;2017. https://doi.org/10.1155/2017/9626918.
[6] Chang AK, Bijur PE, Esses D, Barnaby DP, Baer J. Effect of a single dose of oral opioid and nonopioid analgesics on acute extremity pain in the emergency department. JAMA 2017;318(17):1661–7. https://doi.org/10.1001/jama.2017.16190.
[7] Duncan RW, Smith KL, Maguire M, Stader DE. Alternatives to opioids for pain management in the emergency department decreases opioid usage and maintains patient satisfaction. Am J Emerg Med April 2018. https://doi.org/10.1016/j.ajem.2018.04.043.
[8] Koob GF, Volkow ND. Neurocircuitry of addiction. Neuropsychopharmacology 2010;35(1):217–38. https://doi.org/10.1038/npp.2009.110.
[9] Webster LR, Webster RM. Predicting aberrant behaviors in opioid-treated patients: preliminary validation of the opioid risk tool. Pain Med 2005;6(6):432–42. https://doi.org/10.1111/j.1526-4637.2005.00072.x.
[10] Shah A. Characteristics of initial prescription episodes and likelihood of long-term opioid use — United States, 2006–2015. MMWR Morb Mortal Wkly Rep 2017;66. https://doi.org/10.15585/mmwr.mm6610a1.
[11] Strayer RJ, Motov SM, Nelson LS. Something for pain: responsible opioid use in emergency medicine. Am J Emerg Med October 2016. https://doi.org/10.1016/j.ajem.2016.10.043.
[12] IQVIA Institute for Human Data Science. Medicine use and spending in the U.S.: a review of 2017 and outlook to 2022. https://www.iqvia.com/-/media/iqvia/pdfs/institute-reports/medicine-use-and-spending-in-the-us-a-review-of-2017-and-outlook-to-2022.pdf; 2018. [accessed 10/15/2018].
[13] Yang bo kyum, Trinkoff A, McKinnon M. National opioid prescribing trends in emergency departments by provider type: 2005–2015. Am J Emerg Med 2018. https://doi.org/10.1016/j.ajem.2018.10.041.