The Opioid Crisis and the Certified Registered Nurse Anesthetist: How Can We Help?

This guest editorial reviews the facts surrounding the current opioid overdose crisis in the United States, including the history of opioid use and abuse leading up to the current crisis, and the impact of the crisis on the healthcare system. The editorial concludes with concrete recommendations and actions that Certified Registered Nurse Anesthetists (CRNAs) can take to combat this deadly and tragic epidemic. As leaders in the healthcare system and experts in opioid use and pain management, CRNAs have a moral and professional obligation to help patients and families affected by opioid misuse in any way possible.

Keywords: Opioid overdose crisis, prescription opioid misuse.

Currently, there is an epidemic of opioid misuse and overdose raging in the United States, often involving prescription drugs, that represents a public health crisis of unprecedented proportions.1 Every Certified Registered Nurse Anesthetist (CRNA) in this country has a moral and ethical obligation to assist the healthcare system in dealing with this human disaster. This article poses and seeks to answer the question, how can the profession of nurse anesthesia help to advance effective and safe pain treatments, while protecting our patients from the potential deadly effects of opioid misuse? Let us begin by reviewing the history of the opioid overdose epidemic.

History of the Epidemic

Opium poppy was first cultivated in 3400 BC, and its broad spectrum of applications rapidly spread through ancient civilizations.2 In the early 1800s, morphine was refined from opium, and soon after, myriad preparations of common household items in the United States were tinctured with opioids.2 To combat the societal issues encountered with their widespread consumption, regulatory actions and agencies such as the Harrison Narcotics Tax Act of 1914 and the U.S. Treasury Department’s Narcotics Division were implemented to tax prescribers and eventually ban narcotic sales altogether.3

During the next 60 years, opioids were rarely prescribed, but in the 1980s, the tides began to turn to a well-intentioned battle cry to better treat patients experiencing pain. Opioids were considered the agents to treat pain, supported with the publication of 2 articles, which concluded that addiction was rare in patients receiving opioids and championed the safety of this class of medication in pain treatment.4,5 By 1990, further publications began to demand better pain assessment and treatment in all patient populations.6 Professional societies, such as the American Pain Society, developed some of the first national guidelines compelling practitioners to prescribe opioids, citing the published data of low overdose risk or potential for addiction. State restrictions on the prescription of opioids decreased, leading to increased dissemination of opioids by “pill mill” providers.7 The late 1990s saw large healthcare systems, including the U.S. Department of Veterans Affairs, advocating for routine assessment of pain in any encounter with patients, leading to the genesis of pain as the “fifth vital sign.”8

Pharmaceutical companies also encouraged pain management as a standard of care, as industry giants promoted a wide range of opioid products. The early 2000s saw the pharmaceutical industry ramp up their sales approaches for opioid formulations, with incentivized programs for sales representatives, free samples to pharmacies, special attention to high-frequency prescribers, and support for pain education for those in healthcare.
Some of the information disseminated went above well-intentioned education and went so far as to promote the use of opioids without disclosure of conflicts of interest, misrepresented certain products as “weak” opioids, peddled falsely low addiction risks, and mitigated adverse effects of long-term use. The combination of poorly developed published evidence, the push from well-meaning healthcare systems, and advocacy from pain groups, in combination with a strategically directed campaign from profit-driven pharmaceutical companies, all contributed to the opioid epidemic of modern times.

Further detrimental, but altruistically motivated, contributions to the opioid epidemic came from nationally directed initiatives. In 2000, The Joint Commission introduced standards of care directed at organizations to improve pain management. These standards called for assessments using quantitative measures of pain, recommended by the Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine (formerly the Institute of Medicine), and elevated pain management to an issue of patient’s rights and institutional accreditation.

Additionally, the Centers for Medicare and Medicaid Services (CMS) began including pain management in Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) questionnaires, linking hospital reimbursement to patient satisfaction with pain management. As a result, The Joint Commission and CMS have fallen under intense criticism from the healthcare community for scaffolding a system that incentivizes overly aggressive pain management for accreditation status or remuneration.

Since the implementation of The Joint Commission’s 2000 standards for pain management, multiple revisions have been made in response to the resultant overtreatment of pain with opioids. By 2009 the standard that pain be assessed in all patients was eliminated except for verbiage to include those patients receiving behavioral healthcare. In 2011 The Joint Commission added a note to the standards supporting pharmacologic and nonpharmacologic modalities as appropriate for the treatment of pain and opened a public comment period (January to February 2017) aimed at incorporating a more holistic approach to pain management. National organizations and pain management societies have crafted new guidance lines for pain treatment emphasizing the inclusion of nonopioid therapies. Additionally, CMS modified reimbursement policies, including pain management, in what is known as the “Proposed Rule.” Although CMS will continue to collect the data on pain management satisfaction through HCAHPS surveys, the pain management questions will no longer have an impact on hospital reimbursement starting in 2018.

**Impact of the Opioid Crisis on the Healthcare System**

The prescription opioid crisis has become a national epidemic and has profoundly affected patients, families, providers, and the U.S. healthcare system. According to a National Center for Health Statistics Data Brief in December 2016, U.S. life expectancy decreased for the first time in more than 20 years, driven in part by a rise in the unintentional death rate, including 33,000 people who died in 2015 due to opioid misuse. More than 60% of drug-related deaths involve an opioid, representing an upward trend across the United States, but unlike other historical crises, opioid-related deaths are increasing in nonurban environments.

Small-town communities have been faced with the loss of young residents. The town of Salisbury, Massachusetts, with a population of 8,000, had 1 death related to the Vietnam War during the entire 10-year engagement but experienced more than 15 deaths related to heroin in the last 2 years. In 2016, there were 28 opioid-related overdoses in just 4 hours in Huntington, West Virginia. These occurrences represent an epidemic that is worsening nationwide.

Recently, over a 12-month period, more than 4.3 million people aged 12 years and older reported using pain relievers for nonmedical purposes. According to a recent poll, 44% of Americans had a personal connection to the opioid misuse crisis. More than 25% of respondents reported knowing an acquaintance who was addicted to opioids, 21% indicated they knew a close friend with addiction, and 20% stated they had a close family member with an opioid addiction.

The devastation of the opioid crisis extends to financial implications that are staggering. Birnbaum and colleagues estimated the societal cost of prescription opioid misuse to be $55.7 billion (2009 US dollars). This included loss of workplace productivity ($25.6 billion), healthcare expenses ($25 billion), and criminal justice amounts ($5.1 billion). Reducing the economic impact of prescription opioid misuse is a national priority, but it requires additional resources and support. The continued and collaborative efforts from legislative and government agencies, healthcare providers, and academic and pharmaceutical industry researchers are needed.

Federal and state governments have taken steps to mitigate the epidemic. The Comprehensive Addiction and Recovery Act of 2016 organizes a coordinated response aimed at prevention, treatment, recovery, law enforcement, criminal justice reform, and overdose reversal (expanded naloxone use). The U.S. Food and Drug Administration has responded by clarifying opioid product labeling, focusing on abuse-deterrent formulations, and
addressing the insufficient education regarding nonopioid options for pain management. To address opioid overprescribing by primary care providers, the Centers for Disease Control and Prevention released practice guidelines regarding opioid use in adults with chronic pain. The National Institute on Drug Abuse has improved access to medication-assisted treatment for at-risk populations, including those in the criminal justice system. States have enacted legislation and regulations, including establishing Prescription Drug Monitoring Programs (PDMPs) to monitor electronically transmitted prescribing and dispensing data that are provided by pharmacies and practitioners. The PDMP data are used for education, research, administration, and misuse prevention. As of April 13, 2017, Missouri became the 50th state to enact a PDMP.

Healthcare providers should advise people with a substance use disorder (SUD) that addiction is a manageable healthcare condition, and safe and effective treatment options are available. Medication-assisted treatment includes agonists, partial agonists, and antagonists, and it may reduce the harmful behaviors associated with opioid addiction. Nearly 2.5 million people with a SUD qualify for medication-assisted treatment, but less than 1 million are receiving care. Under the Patient Protection and Affordable Care Act, SUD programs are part of the required coverage provided by insurance companies and other payer sources. These programs offer services intended to treat opioid misuse. In expansion states, Medicaid covers 3 of 10 people for opioid addiction and has substantially reduced the uninsured hospitalization rates for behavioral health by 75% in a 2-year period. Naloxone is effective in managing unintentional opioid overdoses, but open access has been met with resistance in certain states.

As expert clinicians in pain management, CRNAs can serve as patient champions and educators, and can advocate for responsible opioid prescribing at the institutional, local, state, and federal levels.

How Nurse Anesthetists Can Help

According to the American Association of Nurse Anesthetists (AANA) Code of Ethics for the Certified Registered Nurse Anesthetist:

1. The CRNA protects the patient from harm and is an advocate for the patient’s welfare;
2. The CRNA works in collaboration with the healthcare community of interest to promote highly competent, safe, quality patient care.
3. Based on these ethical principles adopted by the national membership to guide the profession, the moral and ethical responsibility of each CRNA to prevent harm related to opioid misuse is clear.
4. Positioned at the intersection of preoperative, surgical, and postoperative care, with responsibilities for acute and chronic pain management, CRNAs are in a unique position to monitor and intervene. The following are recommended actions that CRNAs, especially those who specialize in chronic pain management, may take to enhance the safety of their practice and combat opioid misuse.

1. Conduct a careful preoperative/pretreatment patient evaluation to include signs and symptoms of opioid misuse. If there is evidence of this condition, consider actions to take, including further focused history and a frank, nonthreatening discussion with the patient indicating your concern for his or her well-being. Consider referral and expert consultation with pain management, social work, and addiction experts or other healthcare professionals as indicated. Ensure adequate follow-up in the postoperative phase of care where possible.
2. Data suggest that practice location and environment influences prescribing practices, and when more opioids are prescribed, overdose death rates increase. Whether or not CRNAs have prescribing privileges and responsibilities, it is important to advocate for responsible prescribing practices by participating in the formulation of institutional and department-level policies and procedures providing safe, evidence-based guidelines for opioid pain management, and the appropriate use of nonopioid analgesic drugs.
3. Engage in ongoing continual education and review the evolving principles and evidence underlying safe opioid prescribing practices. Advocate for this education for all practitioners in the practice setting, and at each level of practice: local, state, and national. Although important for all, this is perhaps especially important for CRNAs who provide chronic pain management.
4. Support local, state, and federal legislative efforts to mitigate the epidemic, such as making naloxone widely available on emergency vehicles and for family members of opiate abusers.
5. Although an in-depth review of practice recommendations is beyond the scope of this editorial, review selected principles from experts, elucidated here, and incorporate them into individual practice where possible:
   - Take these initial steps when initiating opioid therapy: Provide a comprehensive assessment and documentation; screen for opioid abuse, use PDMPs, order urine drug testing as indicated, and establish medical necessity and treatment goals to include a robust opioid agreement.
   - Continually assess effectiveness of long-term opioid therapy: Begin with low-dose, short-acting drugs; titrate morphine milligram equivalents (MME) such that 0 to 40 MME is low dose, 41 to 90 MME is

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moderate dose, and greater than 90 is high dose; educate patients about opioid effectiveness and adverse effects; and periodically assess pain relief and functional improvement.

- Continue to monitor for adherence and opioid side effects: Use urine drug testing and PDMPs as indicated; monitor and treat medication side effects, such as constipation.
- Final phase: Continue monitoring, with continued medical necessity, for appropriate outcomes; discontinue opioid therapy as indicated by lack of response, adverse consequences, or abuse with rehabilitation.

6. Access AANA member resources offered by our national organization, which include the following:
- Five free courses on the AANA Learn website (http://www.aana.com/ceandeducation/Pages/AANALearn-Landing-Page.aspx) provide extensive background information on this phenomenon.
- AANA Online has a site specifically addressing this crisis: http://www.AANA.com/opioidcrisis. This comprehensive resource has links, each with further information and links to specific information, including the following: opioid crisis data; SUD (patients and providers); managing chronic pain (patients); advocacy comment letters; opioid safety (providers); substance use disorder facility policy; and getting help (CRNAs and SRNAs [student registered nurse anesthetists]).

In conclusion, the U.S. Surgeon General summed this grim situation last November thusly, “Addiction is taking a stunning toll on America and must not be thought of as a ‘character flaw.’” With only 10% of the 20.8 million Americans with substance use disorder receiving treatment, and nearly 80 people dying each day of opioid overdoses in the United States, it is clear that every healthcare provider must do his or her part. As responible, highly trained leaders in the healthcare system, CRNAs possess the specialized knowledge, skills, and ability to intervene. Affected patients and families need us, and as CRNAs always do, we must step up and help find solutions for this devastating and deadly epidemic.

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