A pharmacy presence on national, state, and local levels is helping to address the opioid epidemic. This article will comment on and examine how pharmacists are working together with the health care team and community to address the opioid crisis.

Substance use disorders (SUDs) are a major public health concern in the United States. In 2015, nearly 21 million Americans 12 years of age or older had a SUD, with 2.5 million Americans having a SUD involving either prescription opioid medications or heroin [1]. Drug overdoses represented the leading cause of accidental death in the United States in 2015, with approximately 33,000 deaths attributed to either prescription opioid medications or heroin [1]. The age-adjusted rate of drug overdose deaths in the United States in 2015 (16.3 per 100,000) was more than 2.5 times the rate in 1999 (6.1) [2]. 91 Americans die each day from an overdose of prescription opioid medications or heroin [3].

The opioid epidemic has not spared North Carolina; in fact, statistics show a worsening situation in the state. The North Carolina State Center for Health Statistics, Injury and Violence Prevention Branch, reported that emergency department (ED) visits related to overdoses of opioids, heroin, and methadone rose to nearly 4,000 in 2015 [4]. A similar increase occurred in unintentional poisoning deaths. From 1999 to 2015, opioid overdose deaths rose from 279 to 1,370 in North Carolina, a 391% increase. Of these poisoning deaths, 93% were caused by drugs and medications; 47% of deaths resulted from a prescription pain medication, heroin, or cocaine. The rate stands at 6.4 people per 100,000 North Carolinians who died from an unintentional opioid overdose. Despite these staggering statistics, opioid medications continue to be heavily prescribed and heroin usage is increasing. If the current trend persists, it is projected that unintentional poisonings will be the leading cause of death in North Carolina.

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National

Multiple national pharmacy organizations have advocated for the pharmacists’ role in the opioid crisis. The American Society of Health-System Pharmacists (ASHP) states, “Pharmacists have the unique knowledge, skills, and responsibilities for assuming an important role in substance abuse prevention, education, and assistance. Pharmacists, as health care providers, should be actively involved in reducing the negative effects that substance abuse has on society, health systems, and the pharmacy profession” [5]. The statement from ASHP goes on to describe the pharmacist’s role specifically in the hospital setting, focusing on responsibilities related to prevention, education, and assistance.

The American Pharmacists Association (APhA), an organization focusing on the pharmacist’s role in the community setting, states that it “supports recognition of pharmacists as health care providers who must exercise professional judgment in the assessment of a patient’s conditions to fulfill corresponding responsibility of the use of controlled substances and other medications with the potential for misuse, abuse, and/or diversion” [6]. In 2016, APhA updated its Policy Manual to address opioid overdose prevention, stating it supports access to third-party (non-patient recipient) prescriptions for opioid reversal agents that are furnished by pharmacists. In addition, APhA affirmed that third-party prescriptions should be reimbursed by public and private payers [6].

The National Association of Boards of Pharmacy (NABP) resolves to address the drug overdose epidemic by encouraging state and federal officials and representatives from...
national associations to support programs that involve pharmacists in expanding access to the opioid overdose reversal drug naloxone [7]. Naloxone, a mu-opioid receptor antagonist, is an FDA approved antidote to opioid overdose [8]. Increased access to naloxone for people likely to witness an overdose could significantly reduce the high numbers of opioid overdose deaths [9]. In recent years, a number of programs around the world have shown that it is feasible to provide naloxone to people likely to witness an opioid overdose, in combination with training on the use of naloxone and the resuscitation of people experiencing opioid overdose, prompting calls for the widespread adoption of this approach [9]. Another NABP initiative, the prescription drug safety website AWARxE, provides authoritative resources about acquiring medication safely, using medication safely, preventing prescription drug abuse, and disposing of medication safely [10].

The College of Psychiatric and Neurologic Pharmacists (CPNP) has developed a resource document to educate community pharmacists on interventions that provide safe and appropriate access to opioids, including providing access to naloxone, while also protecting the public from the hazards of misuse and abuse. This publication is supported by the American Academy of Addiction Psychiatry under its prime grant from the Substance Abuse and Mental Health Services Administration [11].

Finally, the 2016 CDC Guideline for Prescribing Opioids for Chronic Pain refers to and promotes integrated pain management and collaborative working relationships with other providers [12]. The Guideline notes that naloxone co-prescribing can be facilitated by clinics or practices with resources to provide naloxone training and by collaborative practice models with pharmacists. The CDC recommends endorsing pharmacists and pain specialists as part of the management team when opioids are co-prescribed with other central nervous system depressants.

**State**

Pharmacists are clearly stakeholders in the opioid crisis across the pharmacy practice continuum. Pharmacists in North Carolina have been central to the distribution of and education about naloxone, and to counseling patients on risk factors for opioid overdose.

North Carolina passed the Good Samaritan Law in 2013, which allows first responders like police officers and Emergency Medical Services workers (EMS) to administer naloxone to those who have overdosed, Health Department nurses to prescribe and dispense naloxone, and specific community organizations to distribute naloxone to high-risk patients. The Good Samaritan Law also protects people who ask for help from 911, the police, or EMS because they or another person is having a drug overdose. On June 20, 2016, Governor Pat McCrory signed legislation designating that North Carolina pharmacies have a standing order for naloxone, making the life-saving reversal agent more accessible to all. The North Carolina State Health Director Randall Williams signed the standing order, providing a blanket prescription across the state, which allows pharmacists to dispense naloxone without a patient-specific prescription. Through the naloxone dispensing protocol, pharmacists have the clinical responsibility to determine who meets the standing order criteria. Pharmacists are also immune from civil or criminal liability as long as they are acting in good faith under the Good Samaritan Law [13, 14]. For more information regarding the North Carolina standing order for naloxone, visit naloxonesaves.org.

The North Carolina Harm Reduction Coalition (NCHRC) is a statewide grassroots organization dedicated to the implementation of harm reduction interventions, public health strategies, drug policy transformation, and justice reform in North Carolina and throughout the American South. NCHRC implemented an overdose prevention project (OPP) in 2013. The OPP was designed to help prevent overdose fatalities by educating drug users on risk factors for overdose, signs of an overdose, and responses that can save a victim. An overdose rescue kit contains 2 doses of naloxone, directions for administering the drug, and the necessary supplies to administer it. Since the project became operational, NCHRC has dispensed over 38,000 free overdose rescue kits that include naloxone and has received 6,022 confirmed reports of individuals successfully administering the lifesaving medication [15].

Another grassroots effort to combat the opioid epidemic in North Carolina is Project Lazarus. In response to extremely high rates of unintentional drug overdose deaths in Wilkes County, North Carolina, Project Lazarus, an opioid overdose prevention program, was established in 2007 to provide training in the following: assistance to communities to prevent prescription medication overdoses; support and education on pain management practices; and education on substance abuse treatment and support services [16].

Community Care of North Carolina (CCNC) launched the statewide Chronic Pain Initiative in January 2012, building on the success of Project Lazarus [17]. In January 2013, this project received funding support from the Kate B. Reynolds Charitable Trust and North Carolina Office of Rural Health. The Chronic Pain Initiative focuses on safe opioid prescribing, ED policies around opioid prescribing, enrollment in and use of North Carolina Controlled Substance Reporting System (CSRS), education and dispensing of naloxone, and improved patient connections to pain assessment and treatment centers.

The primary findings showed the project’s greatest effect was in intervention strategies implemented within health care settings. However, development of community coalitions, which included all health care professionals, was instrumental in creating the community buy-in necessary to implement effective interventions. CCNC continues to deploy its statewide care management resources, including its network psychiatrists and pharmacists, in local efforts to
improve the safety of opioid use in North Carolina, with particular emphasis on Medicaid beneficiaries and their health care providers.

Future

While pharmacists’ interventions, advocacy, and availability are certainly beneficial, efforts can and should be expanded to provide safe and effective treatment for patients. Building upon the success of community education and outreach, hospitals have investigated ways to implement similar measures given the increasing number of opioid related admissions. The ED has been identified as an important venue for identifying patients with substance abuse needs, which, if unmet, result in higher hospital and ED admissions, and health care costs [18, 19]. Patient counseling, identification and referral to community resources, and naloxone provision are ways to meet these patients’ needs.

Pharmacists can also expand their involvement by incorporating risk-stratified, patient-centered opioid screening into existing workflows. Whether in the clinic, at the pharmacy counter, or at the bedside, asking open-ended questions and actively listening can clue a pharmacist in to red flags of opioid misuse [20]. An additional way to monitor for opioid use disorder or diversion of medications is to use the CSRS. Data in the system allows pharmacists to identify patients at increased risk of overdose, such as those taking high dosages, filling multiple prescriptions for different opioids, or obtaining opioids from multiple prescribers or multiple pharmacies [20]. Exercising professional judgment and identifying these red flags is part of the corresponding responsibility of a pharmacist [21].

In addition, pharmacists must be advocates for safe medication storage and disposal. Findings suggest that current practices related to sharing, storing, and disposing of opioid medications, as well as communication of information on these topics, are suboptimal. A study by Hendricks, et al reports that nearly half of the adults they surveyed with recent opioid medication use did not recall receiving information on safe storage (48.7%) or proper disposal (45.3%) [22]. Patients should be counseling to lock up opioids or any controlled substances. Medications should be put away after each use and never be left out. In addition, old medications—especially opioids—need to be disposed of properly. The best way to discard of old and unwanted medications is to take them to a drug enforcement administration-authorized collector or to a drug take-back program. Visit www.deadiversion.usdoj.gov/drug_disposal/index.html to find a location. If neither of these routes of disposal are available, a patient should be educated about which medications are approved to be flushed (all opioids may be flushed) [23] and how to dispose of medications safely at home [24].

Finally, US schools of pharmacy have devoted little didactic or experiential time to developing student competency about SUDs [25-27]. Pharmacists play a pivotal role in educating patients about SUDs and medications, thus pharmacy students should receive more education on this topic [5, 28, 29]. The American Association of Colleges of Pharmacy (AACP) Special Committee on Substance Abuse and Pharmacy Education updated their “Curricular Guidelines for Pharmacy Education: Substance Abuse and Addictive Disease” in 2016 to provide 10 educational goals for pharmacy school graduates [28]. The AACP curricular guidelines recommend that students be provided with both required and elective opportunities to learn about SUDs. These guidelines also recommend “that at least four hours be devoted to the identification, intervention, and treatment of addiction and related disorders, possibly during a pharmacotherapeutics course sequence” [30]. In doing so, pharmacy schools would create knowledgeable and empathetic pharmacists and patient advocates on the front lines of the opioid crisis.

Conclusion

As essential members of the health care team, pharmacists practicing in North Carolina and across the nation can serve as a critical line of defense against the opioid epidemic by engaging in prevention and treatment of opioid use disorders and overdose. NCMJ

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