Combatting the Prescription Drug Overdose Epidemic: Opportunities for Pharmacist Involvement in Naloxone Distribution

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Naloxone Basics

Drug overdose is a nationwide epidemic that claims the lives of over 43,000 Americans every year. The situation is particularly acute in North Carolina, where overdose deaths have increased more than 300 percent in just over a decade, from 297 in 1999 to 1,101 in 2012. There were also nearly 23,000 emergency department visits for overdose in the state in 2011.[3]

Opioid overdose, whether caused by heroin or prescription painkillers, can be reversed by administration of the medication naloxone. Naloxone, which was first approved by the FDA in 1971, is a prescription medicine, but not a controlled substance. It displaces opioids from the brain receptors to which they attach, reversing their effects and restoring normal respiration. It is a pure opioid antagonist and has no abuse potential.

Because people who use drugs are already "on the scene" of an overdose, experts have recommended equipping these individuals with naloxone for more than twenty years. Programs to dispense naloxone to high-risk populations have operated since the 1990’s, yet access remains challenging.[5-6]

North Carolina’s Naloxone Access/Overdose Good Samaritan Law (SB20), which was signed by the Governor in April 2013, and SB154, which went into effect on August 1, 2015, helps address this challenge. These laws permit licensed prescribers to prescribe naloxone not only to their own patients, but also to a friend, family member, or other person who might be in a position to assist a person experiencing an opioid-related overdose. Notably, this prescription can come in the form of a standing order, in which a prescription can be dispensed to any person who meets criteria specified by the prescriber, as opposed to a named individual. Prescribers, pharmacists, and people who administer naloxone in accordance with the law are immune from both civil and criminal liability. Furthermore, the law encourages people who witness an overdose to call first responders by providing immunity from charge and prosecution for minor drug possession and paraphernalia crimes for people who do so in good faith and provide their name to the 911 operator or first responders.

Initial results of naloxone distribution programs are positive. As of 2014, over 150,000 laypeople in the United States had received training and naloxone kits through these programs, and participants reported reversing more than 26,000 overdoses.[7] A study of naloxone distribution in Massachusetts showed that communities with higher access to naloxone and overdose response training had significantly lower opioid overdose death rates than those that did not. A separate study reported that the provision of naloxone kits to heroin users was found to be robustly cost-effective, even under extremely conservative assumptions.[8-9]

Community pharmacy prescriptions for naloxone are typically for intranasal or intramuscular administration. Intranasal use with a Luer-lock mucosal atomizer device (MAD) is a well-accepted but off-
In 2007, Wilkes County had the third highest unintentional drug poisoning mortality rate in the United States. In response, diverse sectors of the community collaborated to identify and implement effective prevention strategies. The key to success was the project’s comprehensive Wheel Model (see below), that encompasses community and provider education, diversion control, and emergency department visits, among other tactics. Within three years, the overdose mortality rate decreased 69%.

Naloxone rescue kits are appropriate for any patient receiving opioids. However, pharmacists should be particularly alert to patients at high risk of overdose. Among the most important correlates of risk are high opioid doses, changes in dose or formulation, and polypharmacy. While opioids are involved in three-quarters of overdose deaths, at least one other substance is typically also involved. Psychoactive medications of particular concern include barbiturates, stimulants, and benzodiazepines. Other medications, such as clonidine, promethazine, and gabapentin, are relatively benign when used on their own but can have synergistically and dangerously sedating effects when used with opioids. Chronic medical illnesses, particularly diseases of the liver, kidney, and lungs also put individuals at increased risk of overdose. Pharmacists should be especially aware of patients who have recently left addiction treatment programs, been released from incarceration, or restarted prescription opioids.

In response to the immense success of this pilot project, Community Care of North Carolina (CCNC), in conjunction with Project Lazarus Inc., the UNC Injury Prevention Research Center, the Governor’s Institute on Substance Abuse, and local prevention coalitions, has been striving to implement the Project Lazarus model across the state. This effort has been made possible by a 2-year, $2.6 million grant from the Kate B. Reynolds Charitable Trust and matching funds from the NC Office of Rural Health and Community Care.

Broad community involvement is essential to the success of this initiative. As demonstrated by the Wheel Model, prescription drug misuse is a complex problem that calls for a multi-disciplinary solution. Pharmacists play a critical role in helping their patients understand how to take their medication properly, store them securely, and dispose of them correctly. They also play an important role in harm reduction, as they can serve as a primary source of the lifesaving antidote, naloxone. To learn more about how to get involved, pharmacists can contact their CCNC network or local prevention coalition.

**Box 1: Project Lazarus**

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How Can Pharmacists Get More Involved With Naloxone Distribution and Overdose Prevention?

The number of organizations distributing naloxone has grown significantly since 1996, with organizations like public health departments, pharmacies, health care facilities, substance use treatment facilities, and community-based organizations joining the movement. Though the number of naloxone programs has expanded greatly over the past 5-10 years, there is still work to be done to get naloxone in the hands of those who are at risk for prescription opioid overdose. According to the CDC, in 2013, 37% of the 43,982 drug overdose deaths nationwide were caused by prescription opioids and 19% were caused by heroin; however, only 14.1% of the reported reversed overdoses involved prescription opioids while 81.6% involved heroin. This suggests that there is a great need to improve distribution of naloxone to those at risk of prescription drug overdose. This is particularly critical given that this population makes up the majority of people dying from drug overdoses.

Community Care of North Carolina’s Project Lazarus (CCNC’s PL) is striving to involve Community Pharmacies more extensively with naloxone distribution (see Box 1). CCNC Network Pharmacists and Chronic Pain Coordinators are providing education to Community Pharmacies and prescribers on the different naloxone formulations, needed supplies, billing procedures, and necessary patient counseling points. The College of Psychiatric and Neurologic Pharmacists recently put out a Naloxone Access Guideline for Pharmacists, located at https://cpnp.org/guideline/naloxone, which reviews many of these topics. CCNC’s PL has been able to stock almost 100 different pharmacies in 50 different counties with Project Lazarus naloxone kits. The PL kits come with 2 nasal atomizers, a step-by-step naloxone use guide (in English & Spanish), and an overdose prevention DVD in a small plastic container. When a Community Pharmacy is presented with a prescription for naloxone, they can fill the prescription and add the naloxone into the kit with the rest of the supplies. For pharmacies that are not stocked specifically with PL kits, CCNC still encourages them to keep naloxone and additional supplies in stock for patients that may present with a prescription for naloxone. Moose Pharmacy, located in Cabarrus County, is one example of how Community Pharmacies are partnering with CCNC Networks and local prevention coalitions to combat the opioid overdose epidemic (see Box 2 below).

Effective August 1, 2015, North Carolina’s Naloxone Access Law was updated to provide civil and criminal immunity to pharmacists who dispense naloxone to a person at risk of overdose or a person in a position to assist a person at risk of overdose pursuant to a patient-specific or standing order. In the short term, community pharmacists can work with local physicians or their local health department to set up a standing order for naloxone dispensing. However, the hope is that in the long-term, CCNC can work with the Department of Public Health and other partners to issue a statewide standing order. This would permit any pharmacy to dispense naloxone as authorized by the order without each pharmacy needing to partner with a local prescriber. Pharmacists can make a huge impact on reducing the amount of opioid overdoses in North Carolina. With the passage of the Naloxone Access/Good Samaritan Law, pharmacists can now dispense naloxone under a standing order and are immune from any civil and criminal liability in doing so. Pharmacists can and should be involved in their local...
community coalitions, which are often housed in the local health department or a substance use prevention and treatment facility. This type of broad community involvement is essential to the success of the statewide PL initiative. It is our hope that in the future, there will be a statewide standing order issued to maximize naloxone access for all who need it. Ideally, pharmacists would be able to prescribe naloxone independently, without the need for a prescription or standing order. In doing so, North Carolina would join other states, like New Mexico, Connecticut, and Idaho that have adopted this model to make naloxone more readily available.

**Box 2: Moose Pharmacy Case Study**

**Background:** In 2014, Moose Pharmacy leveraged Project Lazarus and an existing relationship with the Community Care of Southern Piedmont (CCSP) Network to promote naloxone availability to patients and providers in the Cabarrus, Rowan, and Stanly County areas. As an independent pharmacy with 5 locations, Moose serves as a key partner to the network in connecting patients to both routine and enhanced pharmacy services. Because pharmacists have access to both naloxone and patient medication data, Moose Pharmacy recognized their unique position of being able to make recommendations to prescribers for naloxone as well as being able to provide direct education to patients and families.

**Process:** CCSP initially supplied a small number of naloxone kits, which were housed at the various Moose locations. Moose Pharmacy engaged in proactive communication to medical prescriber offices regarding the availability of naloxone and Project Lazarus naloxone kits at their locations. Simultaneously, CCSP utilized an internal process to identify patients at potential risk for overdose through referrals from CCCN Network Pharmacists completing medication reviews and from CCNC Care Managers working directly with patients. Referrals were forwarded to the CCSP Medical Director for review and subsequent contact was attempted with the opioid prescriber to encourage a naloxone script if the patient was found to be a naloxone candidate. If appropriate, a template naloxone prescription form (created by Moose) and a letter detailing the overdose criteria met were sent to the prescriber.

**Outcomes:** As of July, 2015, 173 patients have been screened by the CCSP medical director and 144 of these patients were found to be appropriate candidates for receiving a naloxone kit. The majority of these patients’ prescribers (65%) were linked to a pain clinic, while 22% were linked to a Primary Care Physician and 12% were linked to a specialist. To date, CCSP has been able to confirm that 15 screened patients received a kit.

**Lessons Learned:** Throughout this process, the collaborative found communication to be key. Pharmacists used secure messaging to notify the CCSP Chronic Pain Coordinator as to the status of referrals and kits, ensuring a ‘closed loop’ referral system. In addition, a need for broader education to patients and providers regarding the use of naloxone was identified. This will help increase patients’ demand and receptivity of naloxone. Finally, CCSP staff depended on faxing to forward the template naloxone script and patient overdose criteria forms to providers. In the age of electronic health records, it is critical to establish electronic mechanisms for this process, perhaps through access to clinic health systems.
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References


