

Title: Medication Safety and Opioid Risk Screenings conducted by Nurses in Patients' Homes

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The opioid crisis has continued to have negative mortality, morbidity, and financial impact on the United States over the past 20 years. Throughout a 12-month period ending in April 2021, there were 100,306 drug overdose deaths, a 28.5% increase from the same period the year prior.¹ The National Institute on Drug Abuse estimates that approximately 25% of patients prescribed opioids for chronic pain will misuse their medication and about 10% will develop opioid use disorder (OUD).

There have been a multitude of public health and healthcare initiatives across the United States to help curb the opioid epidemic. In 2016, the CDC developed the Guidelines for Prescribing Opioids for Chronic Pain.³ These guidelines include the recommendation for **preventative approaches and upstream interventions** targeted to patients at risk of OUD and/or overdose.

In North Dakota, programs aimed at curbing the opioid crisis include free MedSafe medication disposal at local pharmacies, the "Lock. Monitor. Take Back." prevention effort, and the availability of free 2-dose Narcan kits through Recovery Reinvented.⁴

To help further address the opioid harm reduction efforts, pharmacy faculty at North Dakota State University created the Opioid and Naloxone Education (ONE) Program in 2018. This program moves opioid misuse prevention upstream. Pharmacists screen patients receiving an opioid prescription for risk of opioid misuse and also for risk of overdose and provide interventions based on risk score. Results from the ONE Program show that 20% of the patients screened at participating pharmacies in North Dakota were identified as at-risk of opioid misuse or accidental overdose.⁵ After three years of focusing on prevention in the pharmacy sphere, the founders of the ONE Program wanted to apply The ONE Program's core principles and continue to expand opioid safety to other fields of healthcare and vulnerable populations.

One particularly vulnerable patient population is those receiving home healthcare. In 2015, 4.5 million patients across the United States received home healthcare services.⁶ These patients are often homebound receiving their medications via mail or delivery services from the pharmacy. This can lead to

difficulty for pharmacy personnel to provide adequate education and follow-up leading to potential medication safety issues, especially with opioids. Home health clinicians, such as nurses, are well positioned as the most accessible healthcare provider for this population to provide risk assessments and medication safety education.⁷

Currently, there is minimal literature on opioid and medication safety initiatives in the home healthcare setting. A medication disposal survey and intervention was created for a small number of home healthcare patients by University of Pennsylvania nursing students. The survey found that 53% of respondents had unused medication in their household, 93% of respondents have never been educated how to properly dispose of medications, and 60% of respondents disposed of their medications in the trash, sink, or toilet.⁸ Based on these findings, the ONE Program partnered with local public health units and CHI Health at Home to create a medication safety and opioid risk assessment initiative.

Through this initiative, nurses conduct a medication safety screening to assess medication storage, disposal, and adherence. If the patient is taking an opioid, an opioid risk assessment is also completed. Interventions provided by the nurse are based on patient risk level and include 1. Education about medication storage, disposal, adherence, and opioid safety; 2. Detera drug disposal bag; 3. Daily pill organizer, 4. Medication lock box; and 5. Narcan. The supplies are provided by a grant through the North Dakota Department of Human Services and program development and support is provided by the ONE Program. **More than 1,400 screenings have been conducted to date.** The ONE Program's home health initiative has helped address gaps in medication safety research and has provided critical safety information to a vulnerable population in North Dakota. For more information or to discuss initiating these services with your patients, contact Heidi.Eukel@ndsu.edu

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