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EXPERIENCE

Implementing an overdose education and naloxone distribution program in a health system

Jennifer Devries, Sally Rafie*, Gregory Polston

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ABSTRACT

Objective: To design and implement a health system–wide program increasing provision of take-home naloxone in patients at risk for opioid overdose, with the downstream aim of reducing fatalities. The program includes health care professional education and guidelines, development, and dissemination of patient education materials, electronic health record changes to promote naloxone prescriptions, and availability of naloxone in pharmacies.
Setting: Academic health system, San Diego, California.
Practice description: University of California, San Diego Health (UCSDH), offers both inpatient and outpatient primary care and specialty services with 563 beds spanning 2 hospitals and 6 pharmacies. UCSDH is part of the University of California health system, and it serves as the county's safety net hospital.
Practice innovation: In January 2016, a multisite academic health system initiated a system-wide overdose education and naloxone distribution program to prevent opioid overdose and opioid overdose–related deaths. An interdisciplinary, interdepartmental team came together to develop and implement the program. To strengthen institutional support, naloxone prescribing guidelines were developed and approved for the health system. Education on naloxone for physicians, pharmacists, and nurses was provided through departmental trainings, bulletins, and e-mail notifications. Alerts in the electronic health record and preset naloxone orders facilitated co-prescribing of naloxone with opioid prescriptions.
Evaluation: Electronic health record reports captured naloxone prescriptions ordered. Summary reports on the electronic health record measured naloxone reminder alerts and response rates.
Results: Since the start of the program, the health system has trained 252 physicians, pharmacists, and nurses in overdose education and take-home naloxone. There has been an increase in the number of prescriptions for naloxone from a baseline of 4.5 per month to an average of 46 per month during the 3 months following full implementation of the program including implementation of electronic health record alerts.
Conclusion: Initiating and implementing an overdose education and naloxone distribution program is feasible in an academic health system.

Background

Drug overdose is the leading cause of accidental death in the United States.[1] From 2001 to 2014, the rate of opioid overdose deaths increased by 3.4- and 6-fold for opioid prescription drugs and heroin, respectively.[2] In 2011 alone, 1.2 million emergency department visits were attributed to the nonmedical use of prescription drugs, of which 29% involved opioids.[3] Many states, like California, have responded to increasing trends in opioid overdose deaths with policy changes that facilitate the distribution of naloxone. Naloxone is an opioid antagonist that can reverse an opioid overdose.[4] Naloxone has been distributed to laypersons in community settings, a model known as *take-home naloxone*.[5] State policies have included Good Samaritan laws to protect laypersons and prescribers, third-party prescribing (prescribing a medication to a patient

Previous presentation: The results of this study have been presented previously at the Harm Reduction Conference, San Diego, November 3, 2016.

* **Correspondence:** Sally Rafie, PharmD, BCPS, Department of Pharmacy, 200 West Arbor Dr. #8765, San Diego, CA 92103.
E-mail address: srafie@ucsd.edu (S. Rafie).

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Key Points

Background:

- Opioid overdose deaths are a growing epidemic in the United States.
- Take-home naloxone reduces fatalities caused by opioid overdose.
- In California, pharmacists can prescribe and dispense take-home naloxone directly to patients and caregivers.

Findings:

- Overdose education and naloxone distribution can be initiated and implemented in an academic health system.
- Pharmacist and physician involvement in take-home naloxone programs increases the provision of naloxone to patients and caregivers.
- Establishing regular and consistent pharmacist-initiated prescribing of naloxone is challenging.

with the intention that the medication will be administered to someone else), and pharmacist prescribing.[6,7] In January 2015, the pharmacist scope of practice in California was expanded to include the ability to furnish naloxone directly to patients pursuant to a protocol to increase naloxone access.[8,9]

Harm reduction methods, such as take-home naloxone, address the harms and consequences of substance use. Take-home naloxone confronts the staggering number of deaths associated with opioid use, misuse, and abuse. There have been more than 26,460 reported overdose reversals with take-home naloxone, preventing opioid-overdose deaths.[10] Overdose education and naloxone distribution (OEND) programs have been successful harm reduction strategies among communities of drug users, and they have reduced opioid-related overdose for over 20 years.[11] Community-based naloxone distribution has led to a decrease in opioid-overdose mortality in Chicago and Massachusetts.[12,13] There has been significant need to translate lessons learned in the community to traditional health care settings where opioid use is prevalent and opioid overdose is being managed. In a cohort study of persons who inject drugs in San Diego, almost half (42.1%) of participants reported recently having overdosed on an opioid; these individuals were significantly more likely to have received care in an emergency department (ED) or hospital. There is a significant need for integrating harm reduction services like OEND into medical care.[14]

Traditional health care settings, like ED and outpatient care settings, are initiating efforts for naloxone provision.[15] Efforts to co-prescribe naloxone with long-term opioid prescriptions by primary care providers have shown to reduce opioid-related adverse events, such as ED visits.[16]

In January 2016, UC San Diego Health initiated a take-home naloxone program across the health system. The purpose of this article is to share the steps and lessons learned in developing such a program and to affect naloxone prescribing practices and remaining opportunities.

Objective

Our objective was to design and implement a health system–wide program increasing the provision of take-home naloxone in patients at risk for opioid overdose, with the downstream aim of reducing fatalities. The program includes health care professional education and guidelines, development and dissemination of patient education materials, electronic health record changes to promote naloxone prescriptions, and availability of multiple forms of naloxone in pharmacies.

Setting

This program was implemented within UC San Diego Health (UCSDH) in San Diego County, California. UCSDH is an academic health system with 2 hospitals with EDs and numerous outpatient clinics, infusion centers, and pharmacies.

Practice description

UCSDH offers both inpatient and outpatient primary care and specialty services with 563 hospital beds and 6 pharmacies. In 2015, the system had a total of 636,118 outpatient visits, 74,280 emergency visits, and 28,043 discharges from the hospital. Regional services offered include the regional burn center serving three counties, level I trauma center, comprehensive cancer center, comprehensive stroke center, and HIV and AIDS care. UCSDH is part of the University of California health system, and it serves as the county's safety net hospital.

Practice innovation

An OEND program was initiated and implemented throughout the health system by a multidisciplinary team of physicians and pharmacists who developed prescribing guidelines, trained providers on naloxone, improved the electronic health record (EHR) for naloxone prescribing, provided pharmacy support, and developed patient education. A checklist for developing a hospital OEND program is shown in Figure 1. The program was focused in high-need and high-impact inpatient and outpatient departments, and the pharmacy department. Efforts at the institutional level, such as procedural changes, served to support departmental practice. Departments included family medicine, internal medicine, HIV medicine, emergency medicine, pain medicine, hospital medicine, and pharmacy. These departments were targeted for having a high volume of patients with long-term or high-dose opioid regimens, patients with substance misuse or abuse, and patients with opioid overdose.

Multidisciplinary pharmacy–physician collaboration

An interdisciplinary team of pharmacists and physicians across multiple departments came together to mobilize this effort under the leadership of the pharmacy department, pain management committee, pain consortium, and pharmacy and therapeutics (P&T) committee. Core team members include the medication safety pharmacist specialist, an anesthesia pain specialist physician, a palliative care pain specialist physician, a clinical pharmacist, and a medical student. The primary goal of this team was to develop and implement the