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EXPERIENCE

Development of a targeted naloxone coprescribing program in a primary care practice

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ABSTRACT

Objectives: To develop a targeted naloxone coprescribing program in a primary care practice.
Setting: Large academic family medicine practice in western North Carolina.
Practice description: A robust pain management program was developed at this institution in 2012 which incorporated many of the recommendations later outlined in the 2016 Centers for Disease Control and Prevention (CDC) guidelines for prescribing opioids for chronic pain. The only guideline-recommended initiative that was not addressed involves providing naloxone to patients on chronic opioid therapy at high risk for opioid overdose.
Practice innovation: Pharmacists embedded in this practice developed a targeted naloxone coprescribing program for patients who are on chronic opioid therapy and have doses of 50 mg or more morphine equivalents daily (MED), are taking benzodiazepines, have a history of substance use disorder, or have a history of overdose.
Evaluation: A retrospective chart review was conducted to determine the number of patients on chronic opioid therapy who meet the CDC guidelines for offering naloxone.
Results: A total of 1297 patients were identified, and 709 met the criteria for chronic opioid use. Nearly one-half (n = 350; 49.4%) of these patients met the criteria for naloxone, although only 3.4% had naloxone on their medication list. Doses of 50 mg or more MED was the primary reason for needing naloxone (n = 216; 61%) with concomitant benzodiazepine use as the second most likely reason (n = 130; 37.1%). For patients taking 50 mg or more MED, 37.5% were also on a benzodiazepine and 4.1% also had a history of substance use disorder.
Conclusion: Pharmacists embedded in a primary care practice are well poised to develop a targeted naloxone coprescribing program to increase patients' access to naloxone.

In the United States, the opioid epidemic is staggering. Two million Americans are dependent on prescription opioids, and 10.3 million Americans use prescription opioids for nonmedical reasons.[1,2] Every day, 78 Americans die from an opioid overdose.[3] Since 1999, the number of prescription opioid overdose deaths has quadrupled.[3] One in 4 patients who receive prescription opioids for chronic noncancer pain in primary care settings also has addiction.[4] The economic impact of opioid addiction is similarly astounding. A study estimating the yearly economic burden in the United States found that the total costs of opioid-related poisoning was $20.4 billion in 2009. Direct medical costs were approximately $2.2 billion, and indirect costs of absenteeism and lost future earnings owing to mortality were $335 million and $18.2 billion, respectively.[5] Interventions to prevent or reverse opioid-related overdoses would be useful in reducing both mortality and health care costs.

Naloxone is a reversal agent for opioid overdose that is safe and effective.[6] Growing evidence supports the distribution of naloxone at the community level in reducing opioid overdoses.[7-10] National organizations, including the Substance Abuse and Mental Health Services Administration, the American Medical Association, and, most recently, the Centers for Disease Control and Prevention (CDC) encourage providers to coprescribe naloxone with opioids; however, there are limited data to support the effectiveness of this approach.[1,11,12]

Despite this emphasis on naloxone for harm reduction, targeted distribution of naloxone to patients at the primary care level is not widespread and many barriers remain in place, including legal concerns, financial restrictions, and provider

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Key Points

Background:

- The CDC released new guidelines in March 2016 that encouraged offering naloxone to patients who are at high risk for opioid overdose.
- Data support distribution of naloxone at the community level, but there is little evidence on coprescribing naloxone with opioids in the primary care setting.

Findings:

- In a large academic family medicine practice, only 3.4% of patients who met the CDC recommendations for naloxone had it on their medication list.
- A pharmacist-led targeted naloxone coprescribing program was developed to increase patients' access to naloxone.

uncertainty about how to prescribe.[13,14] In 2016, the largest study to date assessing coprescribing of naloxone for primary care patients on chronic opioid therapy for pain was published.[15] The authors found that prescribing naloxone in primary care is feasible and that providers tend to prioritize patients with more risk factors for an overdose.

The pharmacist is the member of the health care team best suited for ensuring safe and effective use of medications, including opioids. Pharmacists in the community setting have already demonstrated their ability to increase access to naloxone.[16] As the emphasis on coprescribing of naloxone and opioids increases, clinical pharmacists embedded in physicians' practices have a unique opportunity to help improve access to this potential life-saving medication.

Setting

Mountain Area Health Education Center (MAHEC) is a large academic family medicine residency program with an integrated team-based approach to care. As a level 3 patient-centered medical home, a team of physicians, nurses, pharmacists, and behavioral medicine specialists care for more than 20,000 people in western North Carolina. In fiscal year 2015, there were 41,039 office visits. Five faculty pharmacists, 2 PGY1 residents, and 2 PGY2 residents provide comprehensive medication management, disease state management, and patient education through a collaborative drug therapy management agreement. All pharmacists have prescriptive authority via North Carolina's Clinical Pharmacist Practitioner license.

Practice description

In 2012, MAHEC launched an integrated chronic pain treatment and training program to optimize care for patients with chronic pain. In its infancy, there were 2 main goals. The first goal ensured universal precautions for all patients on chronic opioid therapy, which included routine urine drug screenings and pill counts, chronic pain treatment agreements, and controlled substance prescription database monitoring. The second goal involved streamlining care so that controlled substances were written only by the patient's assigned physician or the nurse practitioner who specializes in pain. All patients on chronic opioid therapy participated in the program. The patient met with the nurse practitioner at least once for a consultation and to ensure that the universal precautions were in place. From there, the physician decided whether the patient was comanaged with the nurse practitioner.

As the program evolved, so did the comprehensiveness of the approach to care. Group visits were introduced in 2013 as a way to increase access to care and to foster relationships among patients with chronic pain. In 2014 and 2015, MAHEC helped develop its accountable care organization's care process model for chronic pain, which incorporated a dosing limit for opioids of less than 100 mg morphine equivalents daily. Furthermore, in 2015 an opioid dependence treatment program was developed that enables primary care physicians to provide medication-assisted therapy with the use of buprenorphine for substance use disorder.

Clinical pharmacists have been an integral part of the pain management program since its inception. The pharmacist helps to facilitate pain group sessions, provides education to residents and providers on appropriate use of opioid and nonopioid medications for pain management, develops opioid taper and rotation plans, and directs the opioid dependence treatment program.

In 2016, when the CDC guidelines for prescribing opioids for chronic pain were released, MAHEC's comprehensive pain management program already met many of its recommendations, with one clear exception: naloxone was not routinely or systematically offered to patients on chronic opioid therapy.

Practice innovation

After the release of the CDC guidelines, a needs assessment was conducted to determine the familiarity and comfort of physicians to prescribe naloxone as well as to identify patients who might need naloxone. The needs assessment took 3 months to design and conduct.

In March 2016, an 8-item survey was distributed during a family medicine residency didactic session to residents and faculty. The physicians were asked to use a 5-point Likert scale to rate their level of agreement with each statement (Table 1). From that survey, we found that most physicians were aware of the use of naloxone (mean 4, median 4) and agreed that there is a need to coprescribe naloxone with opioids (mean 4, median 4). However, physicians did not feel comfortable with prescribing naloxone to a patient (mean 2.8, median 3) or instructing a patient on how to administer naloxone (mean 2.5, median 2.5).

Next, we completed an institutional review board–approved retrospective chart review of all patients on chronic opioid therapy to determine the number of patients that met the CDC's recommendation for coprescribing naloxone. Chronic opioid therapy was defined as an active prescription for an opioid for 3 consecutive months. Patients needing naloxone were defined as those with a total morphine-equivalent daily dosage (MED) of 50 mg or more, taking concomitant