Provider Detailing: An Intervention to Decrease Prescription Opioid Deaths in Utah

Susan Cochella, MD, MPH,* and Kim Bateman, MD†

*Department of Family and Preventive Medicine, University of Utah, Salt Lake City, Utah, USA
†Retired

Reprint requests to: Susan Cochella, MD, MPH, Department of Family and Preventive Medicine, University of Utah School of Medicine, 375 Chipeta Way, Suite A, Salt Lake City, UT 84108, USA. Tel: 801-587-3460; Fax: 801-581 2771; E-mail: susan.cochella@hsc.utah.edu.

Abstract

Background. Utah undertook a multipronged effort to reverse an epidemic of deaths among patients taking prescription opioids. This article describes the provider detailing portion of the effort.

Methods. Presentations highlighting six recommended prescribing practices were developed and presented to health care workers. Participants were encouraged to utilize the state prescription database and to complete a series of surveys assessing confidence and behavior changes at 0, 1, and 6 months post-presentation. Continuing medical education credits incentivized participation.

Results. Utah’s medication-related overdose deaths dropped 14.0% in 2008 compared with 2007 following program implementation. A total of 581 physicians and numerous nonphysician health care workers were reached during 46 presentations. Follow-up surveys regarding the degree of adoption of practice changes were completed by 366 participants at 0 months, 82 participants at 1 month, and 29 participants at 6 months. Combined results for all three evaluations showed that 60–80% of responding providers reported no longer prescribing long-acting opioids for acute pain or with sedatives; 50% noted using Utah’s controlled substances database during patient care and utilizing lower starting doses and slower escalations; and 30–50% reported obtaining EKGs and sleep studies on appropriate patients, using patient education tools, and implementing Utah’s prescribing guidelines.

Conclusions. Provider detailing was associated with a decrease in Utah’s prescription opioid death rate and improvements in provider self-reported prescribing behaviors. Other simultaneous interventions may have contributed to the decline in death rates. This intervention’s effect was limited by short-term funding.

Key Words. Academic Detailing; Opioid-Related Deaths; Physician Education; Opioids; Overdose Prevention

Background

In 2003, Utah’s medical examiner noticed an alarming increase in deaths related to prescription opioids and alerted health officials. Epidemiologic data substantiated this concern, and in 2007, the state legislature passed House Bill 137, creating a multipronged approach to address the state’s epidemic of prescription pain medication deaths and appropriating $300,000 to fund a 2-year program. The total budget equaled $500,000 per year, comprising the legislative appropriation and additional funding from various state agencies. Physician detailing on how to prescribe opioids safely was one arm of this approach and is the focus of this article. The primary goal was to decrease deaths related to prescription opioids in Utah. Secondary goals included 1) reaching physicians and other health care providers through presentations that highlighted safety in opioid prescribing; and 2) conducting surveys to assess provider confidence with the material presented and change in practice behaviors subsequent to viewing the presentations.

Methods

The Utah Department of Health (UDOH) secured a grant from the Utah legislature and contracted with HealthInsight, Utah’s Medicare Quality Improvement Organization, to conduct the physician outreach and detailing aspects of this project. A local nonprofit organization, which is largely grant funded to conduct interventions to improve health and health care in Utah, HealthInsight is a strategic partner for this project having strong relationships with physicians and health care organizations throughout the state. The cost of the provider detailing portion of the program was $200,000 in 2008 and $50,000 in 2009.
Cochella and Bateman

Table 1  Six practices for safe opioid prescribing [1]

1  Start low and go slow (refers to dosing)
2  Obtain sleep studies for all patients on moderate or high doses of any long-acting opioid
3  Obtain EKGs for methadone dose increases to and above 50 mg/day (to address potential QT prolongation)
4  Avoid sleep aids and benzodiazepines with opioids
5  Avoid long-acting opioids in acute pain
6  Educate patients and their families about risks

The intervention comprised 1-hour presentations. The professionals who developed this intervention collaborated as a team. This team included Kim Bateman, MD, Sharon Donnelly, and Terri Rose of HealthInsight; Robert Rolfs, MD, MPH, and Erin Johnson, MPH, of the UDOH; Lynn Webster, MD, of Lifetree Clinical Research and Pain Clinic; and Susan Cochella, MD, and Robert Finnegan, MD, of HealthInsight’s speakers bureau. In addition to the peer experts named above, members of the Prescription Pain Medication Program Steering Committee contributed to the presentation used at detailing meetings. The committee included scientists who had mapped the epidemic and who provided critical input on its root causes.

The presentations were seen by urban and rural physicians throughout Utah. To the extent possible, counties with the highest death rates were targeted for the academic detailing intervention. Confidentiality restrictions on controlled substance data prevented targeting medical practices and physicians with relatively high quantities of opioid prescribing or related death rates. In all, 12 rural presentations and 20 urban presentations were heard by groups of primary care physicians and other health care providers in their practices. Additionally, 14 supplemental presentations to serve larger groups took place in such settings as the Utah Medical Association. Presentations occurred between August of 2008 and October of 2009.

Primary care physicians were the project’s primary target. Therefore, primary care physicians served as principal presenters for presentations, facilitating a common understanding of the challenges primary care physicians face and avoiding the perception of condescending messages. Pain specialists copresented where possible to boost the confidence of the guidelines. Participants received several tools to help them remember the presentation information and change suboptimal prescribing behaviors. These tools included a copy of the presentation slides, templates for chart notes, treatment plans (formerly controlled substance agreements), patient education materials, and office posters describing the epidemic. Participants were encouraged to access the Website of the Utah Division of Occupational and Professional Licensing and print a report detailing all controlled prescriptions their patients had filled from any provider.

All audience participants were surveyed immediately after each presentation. At 1 and 6 months after the presentations, participants who prescribe opioids were again surveyed to determine their confidence in prescribing practices and the degree to which they had adopted the six recommended practices. Twenty continuing medical education credits were available to physicians who attended a session, printed their patients’ controlled substance report, and participated in follow-up surveys.

HealthInsight staff engaged speakers; planned and scheduled presentations; provided physician-presenter support before and after presentations; and collected survey data.

Results

The number of unintentional overdose deaths in Utah involving prescription opioid medications dropped 14.0% in 2008 compared with 2007 from 301 to 259. Deaths rose slightly in 2009, from 259 to 265 [3].

A total of 581 physicians attended presentations: 319 attendees in large group settings and 398 in small group settings. In addition, several nonphysician health care providers were reached. Six local-circulation periodicals published articles to educate physicians about the epidemic and to recommend improvements to practices.

Follow-up surveys were completed by 366 participants immediately following the sessions. Surveys at 1 and 6 months reached 82 and 29 prescribers of opioids, respectively. Of those who responded to the initial evaluation, 90% stated that they felt confident describing Utah’s epidemic and adopting the practices. Slightly fewer (85%) said that they were confident in their ability to describe and implement the state opioid prescribing guidelines, and assess changes to their practices. Combining results for all three evaluations, 60–80% of respondents reported avoiding prescribing long-acting opioids for acute pain, or with sleep aids or benzodiazepines. Close to 50% noted that they used the Utah Division of Occupational and Professional Licensing controlled substances database when administering patient care, lowered their initial prescribing dosages, and slowed dose escalations. From 30% to 50% reported increasing their referrals for sleep studies for appropriate patients, using EKGs for metha-
Discussion

The primary goal of this project was to decrease deaths from prescription opioids in Utah. Regarding effectiveness, a decrease in accidental or intent-undetermined opioid prescription-related deaths occurred at the same time as the provider detailing intervention. Other efforts aimed at decreasing opioid-related deaths were simultaneously implemented and could be responsible for the improvement in the number of deaths. Measures apart from provider detailing included the launch of the Use Only As Directed media campaign by the UDOH, the development of the Utah Guidelines on Prescribing Opioids for the Treatment of Pain by the UDOH, the formation of county coalitions for prescription narcotic morbidity and mortality formed by the Division of Substance Abuse and Mental Health, and several private company efforts to educate the public about safe use of prescriptions. It should also be noted that the provider detailing intervention focused primarily on reducing deaths in the population receiving opioids for pain. This intervention did not focus as directly on nonmedical users who consume diverted opioids.

The secondary goal was behavior change in opioid-related practices among physicians and other health care providers reached during the academic detailing presentations. Results demonstrate that at least half of the providers surveyed changed behaviors related to dosing and state controlled substances database usage. However, half or fewer changed behaviors related to ordering EKGs and sleep studies for appropriate patients, a finding possibly impacted by Medicaid’s lack of coverage for sleep studies. A similar number reported compliance with patient education recommendations and new state opioid prescribing guidelines. These results may reflect the time required to fully implement educational interventions and the fact that the guidelines were not yet available and thus not included in the majority of presentations seen by survey participants. Overall, providers who participated in the project noted some improvements in their behaviors and significantly increased confidence in their ability to describe the epidemic and safe prescribing behaviors.

The primary limitations of this project were lack of ongoing funding, in that the project was funded by one-time state monies, and low response rates on provider surveys.

Additionally, many factors impact an epidemic such as this, from a culture of willingness to use a friend’s prescription opioids to the pressure some physicians feel to prescribe opioids when a patient requests them, even though opioids may not be the optimal treatment for that patient. Such a complex and multifactorial problem requires not only time but also cultural changes within the prescribing community and the community as a whole. A short-term intervention is unlikely to fully redefine the cultures involved.

Interpretations of our results must be considered with the possibility of attribution error in mind. While deaths dropped, we cannot be certain that this occurred because of our intervention. Additionally, while we can say that we reached certain numbers of physicians and other health care providers, the data on behavior change were self-reported and so not an objective reflection of behavior change. Lastly, our survey questions are not phrased to capture an improvement in prescribing behaviors over the 6-month time frame, and our response rates were low. Rephrased questions and better strategies to increase response rates would improve our ability to draw meaningful conclusions about prescriber behavior change.

While the durability of practice changes was not measured, the potential for continued use of safer prescribing practices beyond the end of this intervention does exist. If these changes do persist, they may impact death rates in Utah well into the future.

Lessons Learned

Among the lessons learned from this project, five stand out. Our most significant lesson is that collaborating with local health care organizations and staff is essential. We utilized existing relationships and worked with clinic and hospital staff to schedule presentations into the usual meetings physicians attend. We also included clinic and hospital staff in the educational presentations where possible, so that entire clinics would better understand the epidemic and engage in the prevention effort. Clinic and hospital staff members assisted before and after the presentations in tasks associated with obtaining controlled substances database reports and completing surveys. Even so, we encountered organizations that limited dissemination of our materials to their physicians.

The second lesson is to adapt processes so they work best for providers. Initially, we set our change assessment surveys to take place immediately after the presentations and at 1 week and 6 months post-presentation. Through feedback, we found that 1 week is too early for providers to begin changing behaviors and shifted that survey to 1 month. We also learned that physicians often were unable to comply with the sleep study recommendation due to Medicaid coverage limits. Given this and insufficient evidence to support the recommendation, we have since relaxed it.

Third, we learned that our state’s Website, where physicians can check a patient’s controlled substance prescriptions, was difficult and time intensive to use. Since then, we have worked with the state to allow a designated staff person in each physician’s office to check the Website and have pushed for user-friendly improvements to the site.

Fourth, we found that developing the intervention collaboratively with the researchers and state officials who defined the epidemic was helpful. These individuals were
able to provide us with an understanding of the root causes of the epidemic, essential to selecting our six practices.

Finally, our ability to infer the effectiveness of this program was limited by low survey response rates and the phrasing of survey questions. Questions focused on provider confidence in their ability to change behaviors or their amount of behavior change. We could have made greater inferences if questions focused on the proportion of recent pain patients for whom they complied with each practice. Response rates might be improved by increasing incentives or accountability to complete surveys. Adding other modalities beyond the telephone and online surveys used in this project could also help.

Utah County, second largest in the state in terms of population, is replicating a smaller modified version of this academic detailing intervention. Given that the epidemic extends nationwide and opioids often enter the community through prescribers, academic detailing interventions should be considered by any region working to reverse prescription-related overdose deaths.

Summary

Academic detailing of prescribers was part of an effective, multipronged approach taken by Utah to address a statewide epidemic of prescription opioid deaths. The intervention included hour-long presentations to providers recommending six practices for safe prescribing alongside support tools and follow-up surveys to measure change in prescribing behaviors. Epidemiologic data demonstrate that the death rate dropped in the year after our project started and continued to drop after the project ended. Surveys suggest that provider behavior changed. Lessons learned include the importance of working with local organizations, adjusting processes to better work for providers, and advocating as needed to address barriers physicians face. Limitations of this project include that it was a one-time effort, curbing its impact, and that response rates were low, limiting inferences of effect.

Disclosures

Susan Cochella, MD, and Kim Bateman, MD, have no financial relationships to disclose.

References

1 Utah Department of Health. Website of the “Use Only As Directed” campaign. Available at: http://www.useonlyasdirected.org (accessed December 7, 2010).
