Nonetheless, the data gathered from this busy independent community-based hospital help confirm that an aggressive approach to decreasing opioid overprescription and variation in prescribing can be successful. Additional research is needed to define ideal postoperative pain control regimens.

CONCLUSIONS

We have shown that a targeted approach including a hospital intervention is successful in a significant decrease in postoperative opioid prescription and resolution of variation in prescription practices. Longer-term data are needed to support a sustained decrease in opioid prescription. Additional research is needed across different surgical populations and procedures to establish a standardized approach to postoperative pain management.

Author Contributions

Study conception and design: Zipple, Braddock
Acquisition of data: Zipple
Analysis and interpretation of data: Zipple, Braddock
Drafting of manuscript: Zipple, Braddock
Critical revision: Zipple, Braddock

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Surgeons Take Action to Reduce Opioid Diversion via the Implementation of Guideline-Based Opioid Prescribing

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Diversion of prescribed but unused opioids is a significant factor contributing to our current opioid epidemic.[1] Surgeons commonly prescribe opioid medications after operations, and evidence suggests that only approximately 28% of prescribed pills are actually used for postoperative analgesia. As such, surgeons have begun to examine prescribing practices and to develop strategies to reduce the excess of opioids that can lead to abuse and diversion.

A new study out of St Joseph Mercy-Oakland Hospital showcases a successful strategy to reduce the quantity of opioids prescribed postoperatively within a community-based, private hospital in Michigan.[2] Initiated, in part, by impending state legislation regulating opioid prescriptions, a 2-pronged intervention was deployed. First, the Michigan Opioid Prescribing Engagement Network guidelines were posted throughout perioperative areas and were made available for physicians as pocket guides. Then, a lecture for surgical trainees about appropriate opioid prescribing practices and multimodal analgesia was developed and delivered to the staff. This straightforward approach resulted in a 60% to 70% reduction in the number of postoperative opioid tablets prescribed, and it decreased the variability in prescribing practices across surgeons within the hospital. This study is particularly noteworthy because most of the literature surrounding postoperative opioid reduction has taken place in university-affiliated hospitals, and here we see a comparably successful intervention within an independent community-based private hospital.

There is a widely held belief that structural differences, such as practice ownership between university-affiliated and independent community-based private hospitals, affect the dissemination and implementation of new practice guidelines. Enacting best practices that require behavioral changes is considered particularly challenging. Perhaps physicians at university-affiliated hospitals are more highly incentivized to adhere to hospital policies as employees, whereas surgeons with hospital privileges, who practice in an independent setting, might be more inclined to resist change. This new study suggests otherwise. The strategies used by this private hospital to decrease opioid prescribing relied heavily on changing physician behavior, and it witnessed unquestionable success.

In light of the ongoing opioid epidemic, it is essential that we understand both incentives and barriers to successful interventions across hospital settings. In addition to the new study summarized above, we reviewed 7 studies from university-affiliated hospitals that detailed initiatives to curtail excessive opioid prescribing.[3-9] Considered together, the 8 studies all examined prescribing practices before and after an implementation period, and all interventions were overwhelmingly successful. Each study showed a significant reduction in the quantity of opioids prescribed per operation, and the 2 studies that evaluated changes in actual patient opioid use both found a decrease in number of pills taken.[6,7] Similarly, all studies that described specific measures to increase nonopioid analgesic use demonstrated significant success within this realm.[2,5,6] A substantial concern shared by authors was the possibility of undertreating their patients' pain. However, no study that specifically measured opioid prescription refills found any significant increase in patient reported perceptions of pain after implementation.[3,6,8,9]

We can more closely examine any differences between university-affiliated and independent, community-based private hospital initiatives through the lens of a framework widely used in implementation science and developed in the setting of health care: the Exploration, Preparation, Implementation, Sustainment (EPIS) framework.[10] An essential component of the framework is consideration of the outer system context, the inner organizational context, and the interplay between the 2. The outer context refers to everything from state law to the local population. The inner context comprises organizational leadership, internal policies, and characteristics of individual providers.

The specific elements of each opioid reduction initiative fall largely within the inner context and the internal infrastructure of each hospital. In most studies, surgeons were provided with specific guidelines about how many opioid pills to prescribe for each operation, and pocket guides or signage with the same guidelines were often available.[2,4,9] Education for opiate prescribers comprised lectures, videos, individual sessions, and emails.[2,3,5-7,9] Provider education relies on time and other resources within a department, but continuing medical education is not unique to large university-based hospitals, and in fact, the community-based private hospital included in our review is a teaching hospital with surgical residents. Two very successful studies changed the default numbers of opioid pills displayed within the electronic medical record (EMR).[3,9] This intervention, in particular, is quick and inexpensive, and it completely bypasses any lingering concerns over compliance or changing physician behavior. The internal context includes prescriber-level characteristics, but the broad success of all 8 studies suggests that any unmeasured differences in prescribers across hospital types need not affect the success of initiatives to decrease opiate prescribing.

The external context also affects successful implementation of health care initiatives. State and local policies are shared among hospital types, and surgeons practicing in the same region prescribe within the same general external environment. The legal and political milieu may very well influence the rate at which new hospital guidelines are implemented and evaluated. In fact, with the exception of 1 study from Canada, all of the studies we reviewed came from states with robust multimodal pain management and prescription regulations.[11]

By reviewing the most recently published literature on reducing postoperative opioid prescriptions, we found that implementation across different hospital types was nearly identical. We hope that both the results of the St Joseph-Mercy Oakland study and our subsequent exploration of the existing literature may help to overcome any preconceived notions that changing guidelines or behaviors is feasible only in the university setting. Many surgery departments have already taken essential steps toward combating this epidemic, but there is still much work to be done. And if these studies are representative of a more generalized effort to restrict prescribing habits, it is clear that success can be achieved within an external environment that encourages reform via legislation.

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