Tackling the opioid crisis through community teamwork

The opioid epidemic has risen to alarming proportions in the United States, claiming 46,000 lives in 2018. Studies and federal reports documenting evidence of narcotics overuse and addiction in patients have built momentum to curb prescribing habits. Responding to these trends, a Midwestern orthopedic practice launched a multiphase project to reduce opioid prescriptions through incentives and educational initiatives.

Gary Wyard, MD

The baseline and first several phases of the project spanned the course of a year, from fall 2017 to 2018. As physician behaviors changed and the number of opioid prescriptions and refills started to drop, project organizers noticed that patients remained satisfied with their pain care regimens, and for the most part weren't as dependent upon—or interested in—narcotic painkillers as had been anticipated. At each phase of the study, in fact, patients reduced consumption faster than providers reduced prescriptions for narcotics.

Physicians are the key drivers of this crisis, but they have a good defense, says Gary Wyard, MD, chief medical officer at Twin Cities Orthopedics (TCO), Minneapolis. "For the last 30 years, regulators have preached to them about the importance of reducing pain. The reality is, Tylenol is as good as opioids for pain control [in orthopedic procedures]," Wyard says (sidebar, p 25). Wyard and Rachel Uzlik, CPHQ, TCO's vice president of clinic services and vice president of quality at Revo Health, presented the results of TCO's strategy to reduce opioid use at the ASCA 2019 Conference & Expo in Nashville.

Postoperative pain controlled without opioids.

TCO encompasses 39 private practice locations in Minnesota and western Wisconsin. The practice employs more than 2,000 employees, including 124 physicians. Revo Health assists specialty practices with designing and building value-based care solutions.

Proactive efforts to tamp down on opioids is a relatively recent phenomenon (sidebar, p 26). The tide began to turn around 2015, when the New York Times reported a "killer epidemic" that was claiming 33,000 lives per year. In 2018, federal health agencies reported that 46,000 opiate-related deaths had occurred in the United States.

Addiction happens quickly. Wyard in his own experience has seen someone with an ankle fracture get addicted to Percocet within 5 days. Despite numerous warning signs of a growing epidemic, the medical community has been slow to react to the opioid crisis.

"Most doctors didn't think there was an issue. Some were getting a lot of money to promote these drugs," Wyard says.

Cultivating transparency

Rachel Uzlik, CPHQ

TCO and Revo decided to examine the prescribing practices of their own physicians, and formed a plan to reduce prescriptions and consumption quantities. The big question: How to balance prescribing practices with appropriate pain management, ensure patient satisfaction, and reduce adverse health events?

The project incorporated educational tools for physicians and patients alike. Provider guidelines on narcotics prescribing advised a no-refills strategy for patients with pain flare-ups or those seeking early refills, and encouraged non-opioid alternatives such as Tylenol, ice, or tramadol (Ultram). The guidelines also advised against issuing prescriptions to patients who hadn't been seen in more than 2 months.

A chart outlined the maximum number of pills to prescribe for a specific drug after a specific procedure. For patients, project leaders created patient engagement and educational resources

that included making patients aware of Deterra narcotic disposal bags.

To change the culture for pain management, TCO developed a transparent ranking system that conveyed data on the prescribing habits of 46 physicians for postoperative pain. Physicians were briefed routinely, receiving monthly reports of their progress. To gain provider buy-in, "we never blinded the provider names," Uzlik told OR Manager.

Open discussions about results after each phase of the project supported group collaboration and buy-in for guidelines. These discussions were intended to promote a "healthy tension" dialogue between leadership and physicians.

"Debates were encouraged and allowed the team to understand why the physicians were in the position they were in," Uzlik explains.

Phases of the investigation

The project's baseline phase sought to gauge TCO prescribing practices by procedure. Phone calls were made to patients 2 weeks after surgery to get a status report on their pain management and to find out how many pills they'd taken or if they had refilled or stopped the medication.

Most of the 965 participants reported wanting to hold off on, or even decline, pain medication. On average, patients were using just 54% of their prescriptions, and 87% decided not to take them because they didn't like the effects of the drugs or had minimal pain.

The project's next phases addressed the challenge of modifying prescription practices and refill demands while reducing adverse events and keeping patients satisfied and pain-free.

Under one key measure, investigators tracked the morphine equivalent units (MEUs) of narcotics such as Percocet and OxyContin (oxycodone), as well as non-opioid pain regimens such as Tylenol, for a host of procedures. These included hip scope debridement, ankle scope with extensive debridement, carpal tunnel release, laminectomy, ORIF (open reduction and internal fixation) distal radius and ulna, total hip and knee arthroplasties, and lumbar spinal fusion.

Modifications achieve results

Large variability existed in prescribing habits. Some physicians, for example, were prescribing four times more opioids for carpal tunnel surgery than for other procedures.

After this practice was discovered, the number of pills prescribed per patient across all procedures declined considerably: from 41 to 16 pills on average over the course of the project. Overall, prescribing quantities and refills decreased by more than 9% and 9.4%, respectively. At 2 weeks after surgery, average pain levels for patients declined by 13.6%. Patient satisfaction remained high, with average scores of

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An American phenomenon

The US accounts for about 85% to 95% of opiate prescriptions worldwide. In 2012 alone, physicians wrote nearly 260 million prescriptions for opioids. Other industrialized countries have yet to experience this type of health crisis.

Where did the American health system go wrong? "You can't get an understanding of where we are unless you look back on where we've been," says Gary Wyard, MD, chief medical officer at Twin Cities Orthopedics in Minneapolis. "If you asked about opioids 5 years ago, doctors didn't think about it. I'm an orthopedic surgeon, and I know how this affects our patients. But even I wasn't always aware that there had been an epidemic."

The epidemic was decades in the making, Wyard says. Headlines and reports from 40 years ago depict narcotics addiction as a rarity despite their widespread use in hospitals. The pharmaceutical industry enabled the epidemic with aggressive marketing to physicians in the late 1980s and early 1990s. In 1996, Purdue Pharma released OxyContin (oxycodone), the most ubiquitous painkiller that exists today. From the period of 1999 through 2011, oxycodone use would increase by 500%, and opioid-related deaths would rise fourfold.

In the late 1990s, pain became a new priority among regulators. The Federation of State Medical Boards (FSMB) in a 1998 policy reassured physicians that they wouldn't face punitive actions for prescribing opioids, even in large amounts. Several years later, FSMB called on state medical boards to make undertreatment of pain punishable for the first time. The Veterans Administration and the Joint Commission declared pain as "the fifth vital sign." In 2001, the Joint Commission issued a standard telling hospitals to regularly ask about pain and to prioritize treatment for pain.

In 2007, the pendulum began to swing in the other direction. Purdue Pharma and three executives pled guilty to "misbranding" of opiates as less addictive and less subject to abuse than other pain medications, paying $635 million in fines. Several years later, opioids began to dominate headlines, and federal agencies began to document statistics and issue guidance on opioid prescriptions. In 2016, the Centers for Disease Control and Prevention issued guidelines on prescribing opioids for chronic pain. Although this appeared to set some parameters, the same guidance also suggested prescribing opioids for acute pain.

The fundamental issue with pain is there's no thermometer for it, Wyard says. "Standards are unreliable. And no one ever underestimates pain—they always overestimate it."

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9.29 on a scale of 1 to 10.

Many patients reported satisfaction with pain control in the wake of decreased prescription quantities. This suggests that "patients were getting the message about opioid overuse faster than the doctors," Wyard says.

About 46% of TCO patients did not fill a narcotics prescription following surgery, compared with just 15% at a local orthopedic competitor.

The majority of patients who did fill prescriptions either didn't take the pills at all or had consumed just half of the prescription at 2 weeks after surgery. A quarter of the patients who discontinued their prescriptions either didn't know what to do with the leftover narcotics or simply kept them at home for future use. But overall, patient disposal practices improved. Deterra bag usage increased by nearly 14%, and safe disposal habits rose by 23.7%.

Changing the culture

Changing a prescribing culture isn't easy, Wyard acknowledges. Physicians for the most part don't like to be told what to do. However, "our leadership realized that they do respond to peer pressure and peer review. They don't like to be rated, but they also don't like to see bad ratings in comparison to other doctors," Wyard says. Physicians were ranked according to 13 categories of procedures. When they saw where they fell within each ranking, that got their attention.

Through this project, providers saw incredible engagement from community partners and recognition for their hard work, which helped elevate and advance the study findings, Uzlik says. "It always helps to get some good recognition for hard work done well."

At the start of the project, physicians had concerns about pushback—and large volumes of calls—from patients who they thought would want refills. They assumed that satisfaction would decrease with reduced prescribing. But the data disproved these findings. Patient satisfaction remained high, and reducing prescriptions did not lead to an increase in refills, Uzlik says. Patients seemed aware of the very real risk factors, and sought other

Testing new pathways

The project to reduce opioid prescribing by physicians at Twin Cities Orthopedics in Minneapolis represents one of many opioid-sparing initiatives taking place in healthcare facilities across the country.

Several factors are driving this change. "Physicians are starting to realize that there is little evidence that opioids provide better pain relief than non-opioid options," Andrew Fleishman, MD, told OR Manager. Dr Fleishman is the lead author of a study demonstrating the benefits of a multimodal analgesia approach. Evidence suggests that this approach is more effective and less risky than opioid prescriptions.

Patients are also using smaller quantities of tablets than they've typically been prescribed in the past. All of these developments have gained the attention of physicians and insurance companies (which are starting to set limits on prescriptions) and the patients themselves, Fleishman says.

Here are summaries of Dr Fleishman's study and other recent research results.

University of Michigan Health System

In this study, 190 patients undergoing one of six types of procedures took part in an opioid-sparing postoperative pain management pathway. Armed with a small "rescue" opioid prescription for breakthrough pain, the patients took acetaminophen and ibuprofen every 6 hours.

Most of the patients didn't need opioids to control their pain: 52% did not use the drugs after surgery, and 91% said their pain was manageable. Pain scores were generally higher among opioid users, who on average used four pills and had two pills left over from the prescription. Next steps are to expand the list of procedures to 18 and implement the pathway in other institutions in the state.

NYU Langone Health's Department of Orthopedic Surgery

The health system has undertaken an institution-wide effort to reduce opioid dependence. Several studies at the American Academy of Orthopaedic Surgeons (AAOS) 2019 Annual Meeting in Las Vegas reported success in curbing prescription quantities after orthopedic procedures.

One pathway managed to reduce opioid use by 75% in patients undergoing hip arthroplasty. Participants received acetaminophen and meloxicam the day before surgery, continuing with non-opiate pain control and the opioid tramadol as a drug of last resort for breakthrough pain following surgery.

Another study randomized patients undergoing arthroscopic shoulder instability into two cohorts: one that received ibuprofen with a rescue opioid prescription and one that received an oxycodone prescription. Postoperative pain intensity scores among the two groups were similar, but opioid consumption was significantly lower in the ibuprofen group.

"Our results reflect that all of us in orthopedic surgery need to look at our surgeries, reexamine our protocols, and work across our institutions to minimize opioid use while still maximizing patient comfort and recovery," said Joseph D. Zuckerman, MD, NYU Langone's chair of orthopedic surgery, in a statement.

Emory University School of Medicine

Detailing the results in the Journal of the American Medical Association, a team of researchers explored whether it could reduce

pathways through education and trial to manage their pain.

Wyard says that many patients, in fact, asked their physicians, "Why are you ordering these opioids for me? I don't need them, and they're expensive."

A call to collaborate

TCO's multiphase project was successful in creating tools to guide providers in using best practices and supporting the community in the fight against opioid overuse.

Next steps are to further reduce prescribing guidelines based on patient feedback.

"We want to collaborate with other groups, non-ortho and ortho alike, to understand how we can continue to address the opioid crisis," Uzlik says. Other goals are to establish weaning tools for patients and to create a culture of greater awareness about elements of pain and pain predictors. "We know that not all patients are alike, and neither is their pain. How can we better understand who, why, and when?" she asks.

The fourth phase of their project began in August 2018, expanding its reach to 125 physicians across all interventional procedures. "We are scrubbing data through May of this year, which totaled more than 7,000 patients," Uzlik says.

Helping patients who are already addicted remains a conundrum. "We don't have the answers yet. Fortunately, where we practice it's not a problem," Wyard says. TCO's position is to delay surgery until addiction is under control. "We won't operate on an opiate-tolerant patient."

Ultimately, he adds, the goal is to teach patients how to wean themselves off opioids and use alternative medications. ✣

Jennifer Lubell is a healthcare writer based in Rockville, Maryland.

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opioid consumption in knee surgery patients through stewardship/education initiatives.

The team divided 264 patients undergoing anterior cruciate ligament at an academic surgery center into three groups. One cohort received 50 opioid tablets following surgery. Patients in the other two groups were each prescribed 30 tablets, but only one of these groups received preoperative education about appropriate opioid use and alternative methods.

Those in the opioid group consumed 9 more tablets (an average of 25) over more days than did those in the 30-tablet, no education cohort (16 tablets). Patients in the preoperative education group consumed the fewest tablets (approximately 12) over the fewest days overall.

Given the study's limitations—just one center with a relatively young patient group—its authors recommended studying this approach in other populations.

Thomas Jefferson University/Rothman Orthopedic Institute

Another presentation at the AAOS Annual Meeting tested a multimodal analgesia/minimal opiates approach for elective hip surgery. A cohort of 235 patients received one of three discharge pain regimens: scheduled-dose multimodal analgesia (acetaminophen, meloxicam, gabapentin) with a minimal opiate supply; scheduled-dose multimodal analgesia with a traditional opiate supply; and a traditional PRN "as needed" opiate regimen.

Relative to the opioids-only group, daily pain and opiate use was significantly lower in the two other groups. Those in the multimodal analgesia groups reported improved sleep and satisfaction, leading the researchers to conclude that the approach improved pain control while reducing opiate reliance and adverse effects.

The study, published in the Journal of the American College of Surgeons, "was the first to demonstrate what reducing the prescription load means to postop analgesia, with a study design that eliminated subjective bias by patients. We believe this is the most definitive evidence reported to date that we are headed in the right direction," Dr Fleishman says.

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