They're cutting opioid prescriptions by stopping pain before it starts

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Doctors today are reducing their patients' need for strong opioid medications after surgery by pre-treating patients with other pain relievers before they even enter the operating room.

While opioids relieve patients' pain and suffering, between 8% and 12% of those who take these drugs develop an opioid use disorder. At Keck Medicine of USC, health professionals are part of a national mobilization effort to tackle the crisis at one of its sources: the doctors who prescribe the drugs.

How? By reducing the need for narcotics among patients undergoing operations.

"Our goal is to fight the opioid epidemic by decreasing the pain so patients need less opioids after surgery," says Keck Medicine anesthesiologist Michael Kim. "After all, the best way to reduce opioid misuse is to avoid using them in the first place."

Kim—an assistant professor of anesthesiology with the Keck School of Medicine of USC—and his colleagues lead Keck Medicine's Enhanced Recovery After Surgery (ERAS) program. ERAS is a slate of nationally recognized practices that help patients recover well while simultaneously reducing the need for opioid medication. And the results are striking: Some surgical groups at Keck Medicine have slashed their opioid usage by 50 to 80% over the past year through ERAS.

Step 1: Start with Non-opioid Pain Medication

A growing body of research suggests that following a non-opioid pain medication protocol improves patient outcomes and speeds up recovery.

Carol Peden, professor of anesthesiology with the Keck School of Medicine, says, "prior to the current systemwide approach with ERAS, we had pockets of excellence with Keck Medicine surgeons using these techniques. Now we are systematically embedding this approach across service lines, so more patients benefit."

When Peden saw her first patient treated with an ERAS approach, she couldn't believe her eyes. "I walked in the morning after he had a major bowel resection, and he was sitting out of bed, alert and smiling," says Peden, who has international experience with ERAS. The strategy is effective, in part, because the care starts before surgery: The patient and family are prepared and working with their health care team to meet common goals.

Here's how it works:

Pre-treat the Pain Before Surgery

Research confirms that patients do better when they know what to expect, especially when pain is involved. Keck Medicine physicians develop a roadmap of patients' health care from pre-op through recovery.

"Before they ever set foot in an operating room, patients know their projected length of hospital stay, their expected level of pain and how long it will take to get back to their usual activities," Kim says. When surgeons make their first incision, the body reacts to the injury, initiating a reflex stress response. But under ERAS, doctors blunt that response by "pre-loading" patients with non-narcotic pain relievers, such as acetaminophen (Tylenol), gabapentin and non-steroidal anti-inflammatory drugs like ibuprofen, for up to three days before surgery.

They also educate patients to drink sufficient fluids, eat a healthy diet, exercise and avoid alcohol and smoking before surgery.

Fewer Medications During Surgery

Since patients receive some pain-relieving medication prior to surgery,

doctors are able to use fewer medications during the procedure. In many cases, doctors also use local pain blocks to minimize pain during and after surgery to help relieve pain without making the patient feel groggy.

Guided Recovery After Surgery

Patients begin a regimen of non-opioid pain medication around the clock to help them meet targeted milestones after surgery. "Each patient gets a goal sheet with specific guidelines for when they should drink, eat and start moving," says Kim. "The goals are designed to help them get well quickly and send them home without exposure to potentially addictive medications."

Patients Feel Better

Traditionally, patients came out of surgery sleepy and needing strong painkillers. With ERAS, patients are alert, awake, comfortable and moving around within a few hours of surgery. Since rolling out ERAS in April 2018, Kim and his colleagues have seen these benefits:

• Significantly reduced opioid use

• Reduced rate of postoperative complications and readmissions

• Reduced average hospital stays by up to 21%

• Reduced variance in care

• Improved patient satisfaction

"The impact has been so dramatic it gives me chills just thinking about it," Kim says. Cardiothoracic surgery patients are going home with

minimal narcotics. Ear, nose and throat patients are spending less time in intensive care. And urology patients are getting their bladder catheters out two days earlier, he adds.

Who Practices ERAS at Keck Medicine?

ERAS is only effective when every person who has contact with patients knows the protocol, including schedulers, nurses, pharmacists, physical and occupational therapists, and nutritionists.

"This has been an incredible systemwide effort to give the patient the best experience possible," Peden says. "We even have nurses who are coming in at 4 in the morning to ensure the night shift staff know the protocol."

At USC, seven surgical groups currently follow the ERAS practices: cardiovascular, thoracic, colorectal and spine surgery; gynecologic oncology; otolaryngology; and urology. In the pipeline for 2019-20 are vascular surgery, orthopedic oncology, plastic surgery, bariatric surgery and liver/kidney transplant surgery. Within a few years, Kim projects that 60 to 70% of Keck Medicine operations will follow an ERAS protocol.

"The program is successful because health care professionals have come together as a team to deliver this incredible care. The team sees visible improvement in their patients. They are much more alert and comfortable, and they get out of the hospital more quickly," Kim says. "We're enhancing recovery for patients, and in the process, actively fighting the opioid epidemic from the front end by decreasing the patients' need for narcotics."

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