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## **Pre-surgery counseling, non-opioid pain relievers shown to reduce post-surgery opioid use**

**NEW ORLEANS, La.** (March 6, 2018)—Two new studies presented at the 2018 Annual Meeting of the [American Academy of Orthopaedic Surgeons](#) (AAOS) demonstrated that pre-operative counseling resulted in a significant decrease in opioid use after hand surgery and patients who used non-opioid pain relievers following surgery experienced a similar pain experience and benefit with less adverse events than those that received opioids. Both studies were conducted at the Rothman Institute at Thomas Jefferson University in Philadelphia and focused on pain management following [carpal tunnel](#) release (CTR) or [trigger finger](#) release (TFR) surgery.

“We know that normal opioid use to manage patients’ post-operative pain is resulting in the inadvertent consequence of opioid addiction and abuse,” said Asif Ilyas, MD, lead author, Program Director of the Hand Surgery Fellowship at the Rothman Institute and Professor of Orthopaedic Surgery at the Sidney Kimmel Medical College at Thomas Jefferson University. “The spirit of my work is to find mechanisms to prescribe opioids more carefully, while also evaluating strategies that can ultimately reduce patients’ need for them, and ultimately decrease the rate and risk of abuse and addiction. The most surprising result of our counseling study was that there was a two-thirds reduction in opioid use with simple counseling. Once patients were made aware of the risks, benefits and the safest ways to take opioids, they sought and pursued alternatives. In addition, the actual pain experience was no different between the study groups.”

The United States is experiencing an opioid epidemic. As drug overdose deaths have increased, the majority—66 percent—are due to opioids.<sup>i</sup> An average of 115 Americans die daily from an opioid overdose.<sup>i</sup> Orthopaedic surgeons are the third leading physician prescriber of opioids<sup>ii</sup> due to the types of injuries and surgeries they treat. Many orthopedic procedures, such as CTR, have been identified as potentially resulting in extended opioid use.<sup>iii</sup>

In the study, “[A Prospective Randomized Study Analyzing the Effect of Pre-Operative Opioid Counseling on Post-Operative Opioid Consumption after Hand Surgery](#),” patients undergoing CTR surgery were randomized to receive either formal pre-surgery opioid counseling or no counseling. All surgeries were performed using the same surgical technique and each patient was prescribed the same number of opioids post-operatively. Patients in the counseling group reviewed a one-page informational form that was derived from the Pennsylvania Orthopaedic Society recommendations. The counseling session outlined the significance of the opioid epidemic and five recommendations to address safe opioid usage. The recommendations included:

- Trying non-opioid medications before using prescribed opioids
- Prescribing the lowest dose of opioids
- Defining the anticipated duration of opioid usage after surgery
- Determining if the patient had any risk factors for opioid abuse
- Declaring if opioids are being prescribed by other healthcare providers

In short, patients in the counseling group used a significantly lower number of total pain pills (two-thirds less) over the course of the study than the group who did not receive counseling, while having an overall

equivalent pain experience as the no counseling group.

“Counseling is a very simple thing to do,” said Dr. Ilyas. “There is nothing required beyond time and educational material. I too was surprised by the dramatic differences and how very little resources it took to implement pre-surgical counseling. In my own personal practice, since completion of this study, I now provide formal pre-surgical opioid counseling 100 percent of the time.”

The second study—[“Fighting the Opioid Epidemic: A Prospective Randomized Controlled Double-Blinded Trial Comparing Acetaminophen, Ibuprofen, and Oxycodone after Hand Surgery”](#)—evaluated the efficacy of non-opioid drugs, ibuprofen and acetaminophen to manage pain following CTR or TFR. Patients scheduled to undergo CTR or TFR under local anesthesia were randomized to receive 10 de-identified capsules of either oxycodone 5mg, ibuprofen 600mg or acetaminophen 500mg after surgery. Both the surgeon and the patients were blinded as to which medication the patient received.

The average total pills consumed following surgery (0-5 days) was 2.9 of oxycodone, 4.4 of ibuprofen and 3.1 of acetaminophen ( $p>0.8$ ). Pain experienced post-operatively was recorded, and the average pain scores for the oxycodone, ibuprofen and acetaminophen groups were 1.6, 1.3 and 1.4, respectively ( $p>0.15$ ). There was also no difference in adverse events or requests for different or stronger medications in either group. In short, there was no difference in pain experience and pill consumption if a blinded patient received oxycodone, ibuprofen, and acetaminophen.

“Our goal is to challenge the mindset of the absolute need for opioids following surgery. With studies like these identifying that non-opioids can be effective in post-operative pain then we can take steps toward moving away from the aggressive opioid prescribing habit that we suffer from as prescribers and that patients also expect,” said Ilyas. “My general recommendations for orthopaedic surgeons and patients based on these study findings and from our previous studies we have performed would be three things: 1—Don’t receive and use more opioid pills than absolutely needed. The less the better. 2—Learn about the risks and benefits of opioids and how best to take them most safely. 3—Before using the prescribed opioids after surgery, try non-opioid alternatives first. Not every surgery needs an opioid and there are many available alternatives.”

#### [2018 AAOS Annual Meeting Disclosure Statements](#)

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<sup>i</sup> Centers for Disease Control and Prevention. Understanding the epidemic.

<https://www.cdc.gov/drugoverdose/epidemic/index.html> Accessed 1/29/18

<sup>ii</sup> Alter T, Ilyas A. A prospective randomized study analyzing preoperative opioid counseling in pain management after carpal tunnel release surgery. *J Hand Surg Am.* 2017;42(10):810-815.

<sup>iii</sup> Johnson SP, Chung KC, Zhong L, et al. Risk of prolonged opioid use among opioid-naïve patients following common hand surgery procedures. *J Hand Surg Am.* 2016;41(10):947-957.e3.