

Post-op Opioid Prescription Amounts

Decreasing, But Not Yet at Recommended Levels

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The number of opioids patients receive after surgical procedures has a significant impact on their risk of developing chronic opioid use^{1,2}. Several expert panels have issued recommendations for safe opioid prescribing for the maximum number of opioid tablets that should be prescribed following common outpatient procedures^{3,4,5}.

We studied the median number of opioid tablets prescribed after same-day surgical procedures in the U.S. The number of tablets containing 5 mg of oxycodone, corresponding to 7.5 MME (morphine milligram equivalents), decreased by half between January 2017 and December 2020, though it remains higher than best-practice recommendations for some procedures. While the number of tablets per prescription decreased, there were not fewer opioid prescriptions overall.

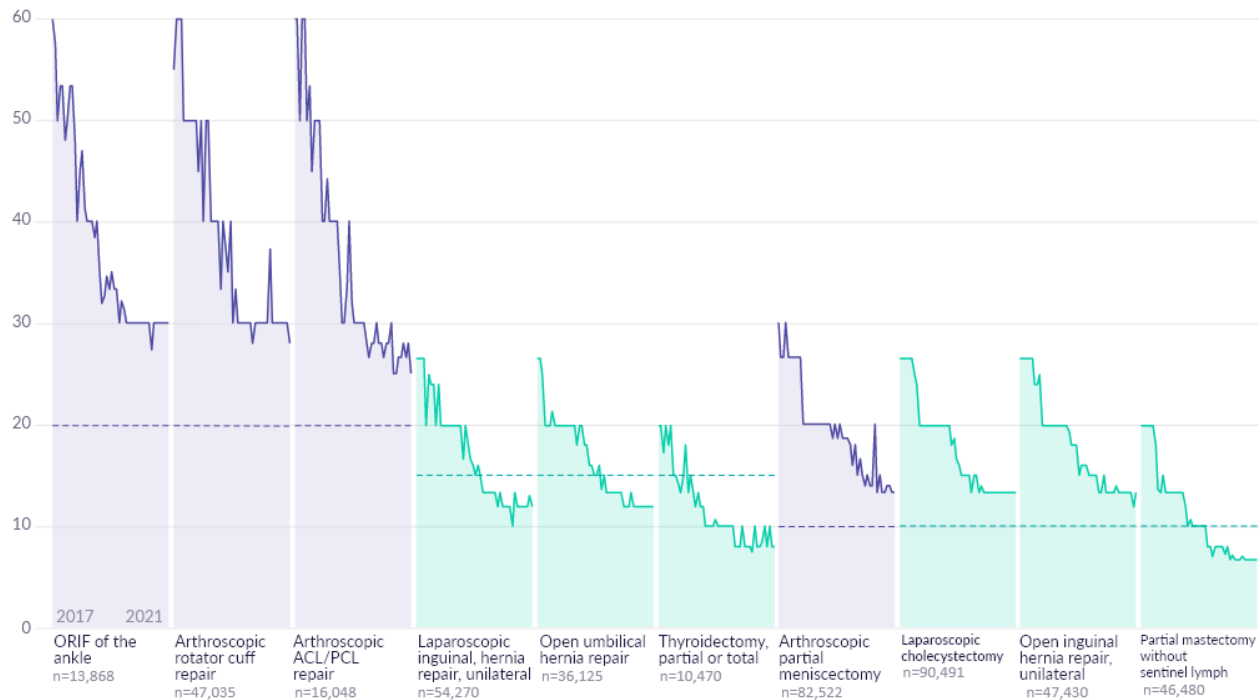
Number of Post-Surgical Opioid Tablets Prescribed

Figure 1 shows the opioid prescribing habits over the last four years for 10 common procedures. For the four orthopedic procedures we studied, the median number of tablets prescribed decreased by half but is still above recommended quantities. Of the six non-orthopedic surgery procedures we studied, four now meet recommendations.

Median Opioid Tablets Prescribed After Surgery by Procedure

January 2017–December 2020

○ Orthopedic ○ Non-Orthopedic - - - Maximum Recommended Prescription



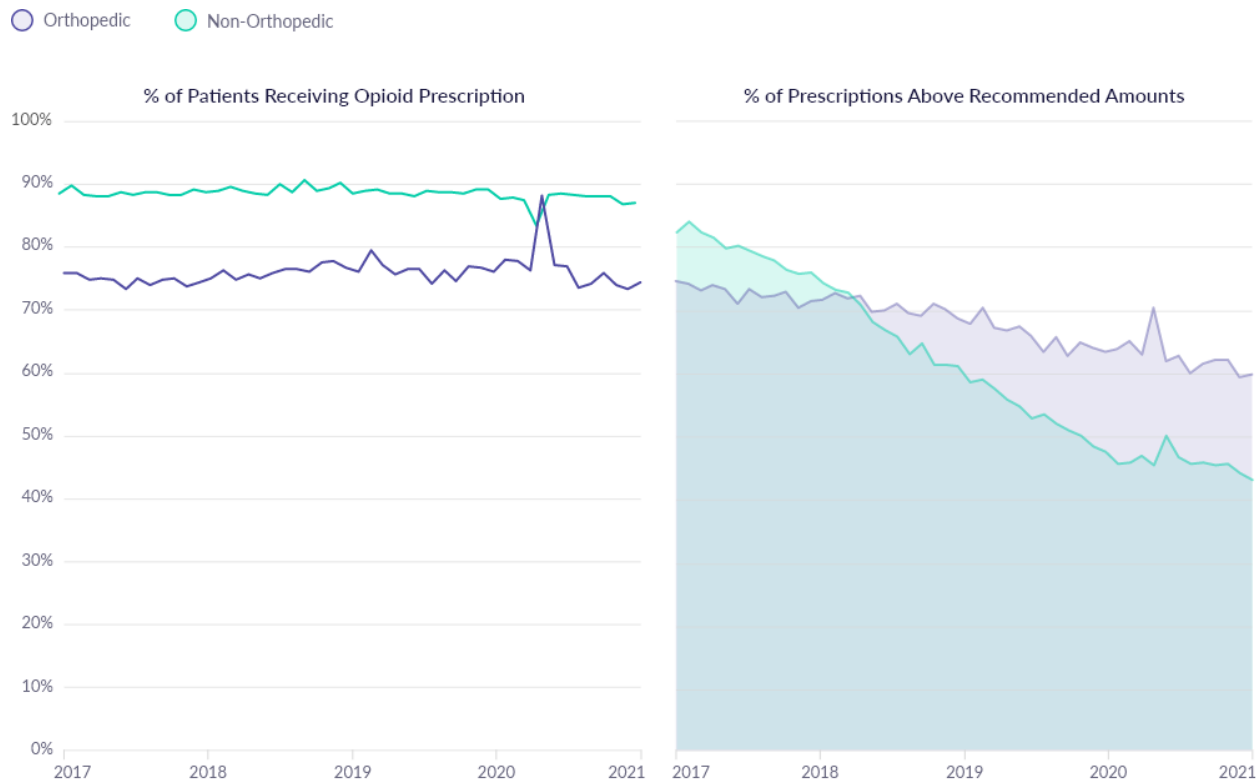
"Median Opioid Tablets Prescribed After Surgery," 2021. Epic Health Research Network (EHRN.org)

Figure 1: Median number of opioid tablets (5 mg oxycodone tablet, corresponding to 7.5 MME) prescribed after 10 common same-day surgical procedures from January 2017 through December 2020. The solid lines represent the number of tablets prescribed, and the dashed lines indicate the maximum recommended amounts³ for those procedures.

Number of Post-Surgical Opioid Prescriptions Written

The number of procedures followed by an opioid prescription remained stable over the past four years. Of those prescriptions, the percentage with quantities of opioid tablets greater than expert recommendations has decreased but is still not meeting recommendations for most prescriptions.

Number of Post-Surgical Opioid Prescriptions Written and Prescription Amounts



"Number of Post-Surgical Opioid Prescriptions Written and Prescription Amounts" 2021. Epic Health Research Network (EHRN.org)

Figure 2: The left graph represents the percentage of surgical procedures followed by an opioid prescription. The right, shaded graph represents the percentage of those prescriptions that included more tablets than the expert recommendations³ indicate.

While fewer opioid tablets are being prescribed per prescription across procedures, there is still room for improvement to better align with recommendations for decreasing post-surgical opioid prescriptions.

This study was completed by two teams (A: DL, AMR, XP; B: SA, JL, DG), each comprised of a clinician and two data scientists, that independently acquired and analyzed data. Both teams were involved in the interpretation of results and drafting of this brief. Overall, the two teams came to similar conclusions. We pooled data from 87 organizations for opioid prescriptions following same-day surgical procedures performed at least 200 times a month on average between January 2017 and December 2020. This study examines only prescriptions written for opioid-naïve adult patients. The study examines prescriptions as written, not the number of tablets dispensed, administered, or taken. Download this study to see the data definitions used.

Term	Definition
Opioid naive	Having no opioid prescriptions started or administrations between 183 (approximately 6 months) and 8 days prior to surgical procedure.
Adult	18+ years old at the time of the procedure.
Perioperative	7 days before to 7 days after surgical procedure.
Same-day surgery	Encounter start date and end date are the same with the surgical procedure occurring on this date.
Opioid prescription	A medication matching one of the following: <ul style="list-style-type: none"> - pharmaceutical class of opioid analgesics; opioid analgesic and NSAID combination; analgesic, opioid-dietary supplement combinations; opioid analgesic and non-salicylate analgesics; opioid analgesic and salicylate analgesic combinations; or opioid analgesic, salicylate, and xanthine combinations. - RxNorm code of 1841, 6378, 7238, 56795 <p>Includes all prescriptions with enteral (including oral) or transdermal route of administration.</p>
Opioid tablet	5mg oxycodone tablet, corresponding to 7.5MME (morphine milligram equivalents).
Orthopedic surgery	Arthroscopic partial meniscectomy: CPT codes 29880, 29881. Arthroscopic ACL/PCL repair: CPT codes 29888, 29889. Arthroscopic rotator cuff repair: CPT code 29827. ORIF of the ankle: CPT codes 27766, 27792, 27814, 27822, 27823.
Non-orthopedic surgery	Laparoscopic cholecystectomy: CPT codes 47562, 47563, 47564. Laparoscopic inguinal hernia repair, unilateral: CPT codes 49650, 49651. Open inguinal hernia repair, unilateral: CPT codes 49505, 49507, 49520, 49521, 49525. Open umbilical hernia repair: CPT codes 49585, 49587. Partial mastectomy without sentinel lymph node biopsy: CPT codes 19160, 19301. Thyroidectomy, partial or total: CPT codes 60210, 60212, 60220, 60225, 60240, 60260.

References

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