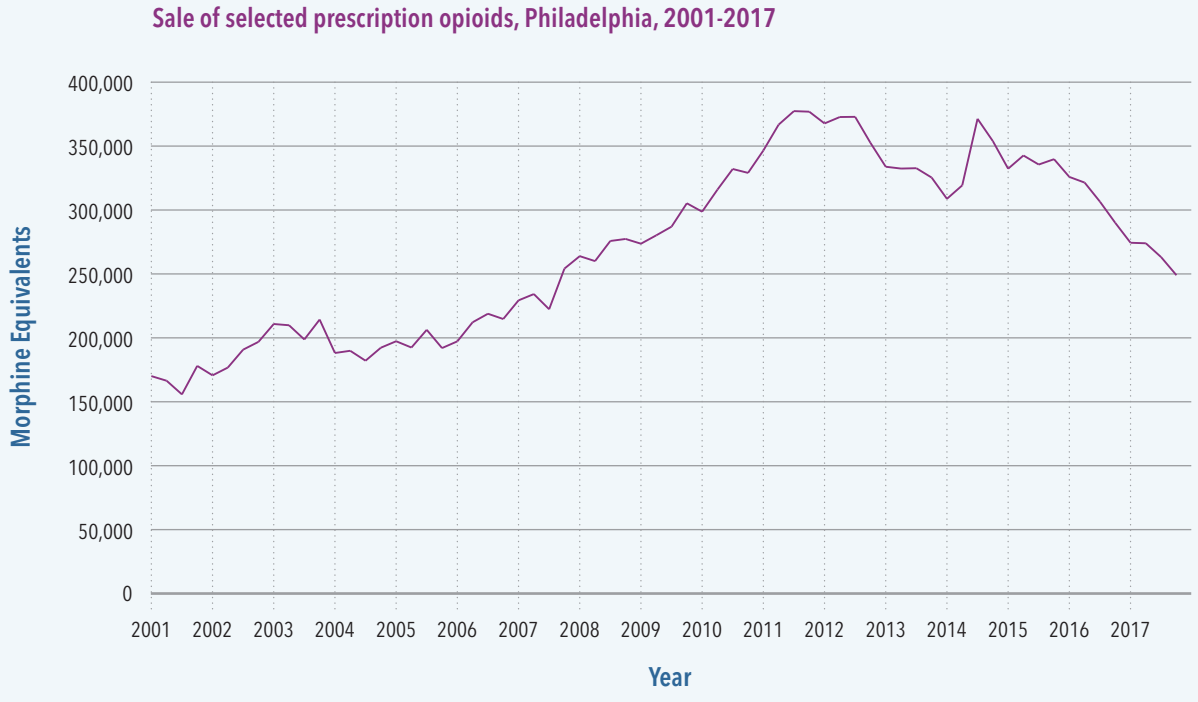
Postoperative Opioid Prescribing Guidelines

BACKGROUND FOR SURGEONS

Over-prescribing of Opioids Continues to Feed the Opioid Crisis

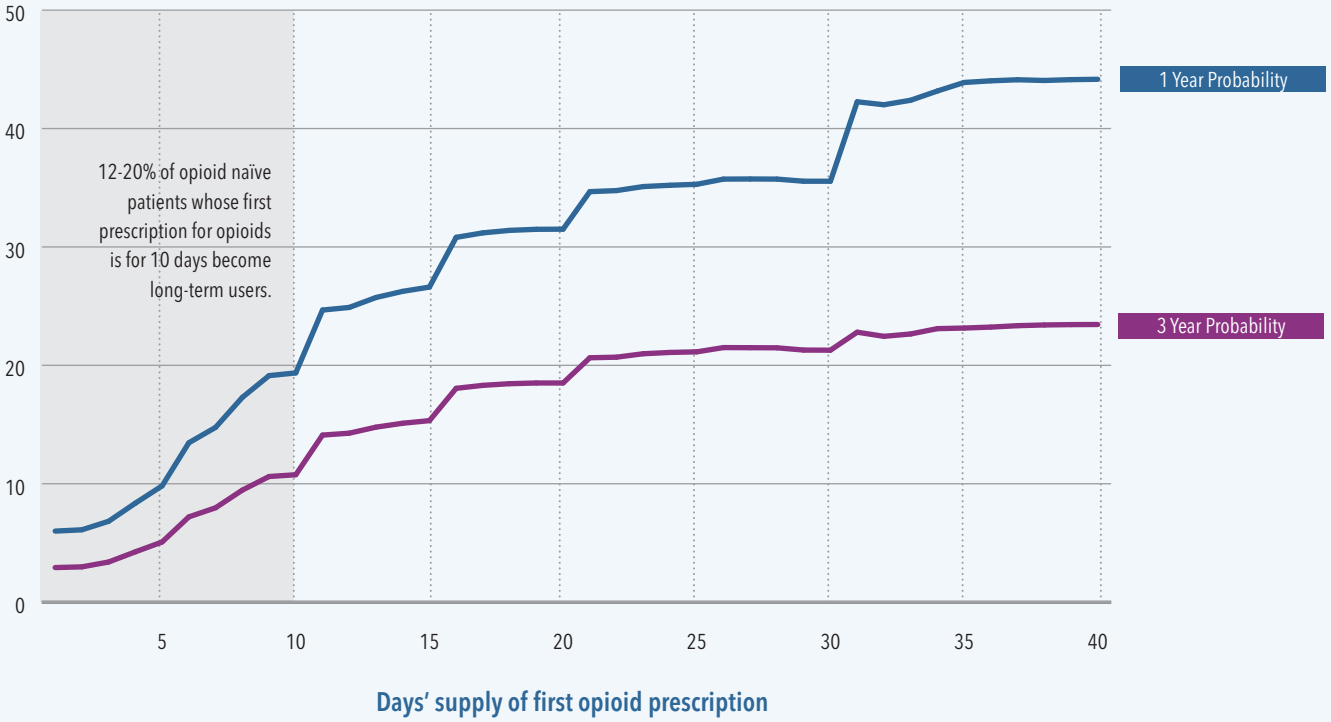
While there are many routes to drug addiction, most heroin users began their opioid use with prescription medications.[1] Despite the risks of prescription opioids, they continue to be prescribed at historically high rates in Philadelphia. Opioid prescribing began to rise in the 1990s and peaked in about 2012, but sales in 2018 are still far higher than they were in 2001.[2] Based on a survey of the general population of Philadelphia, approximately 1 in 3 adults (469,000 people) in Philadelphia took a prescription painkiller in the past year. While some people obtained them from friends, family or street dealers over 80% received them from their physicians.[3]



Opioid Use After Surgery Contributes to the Problem

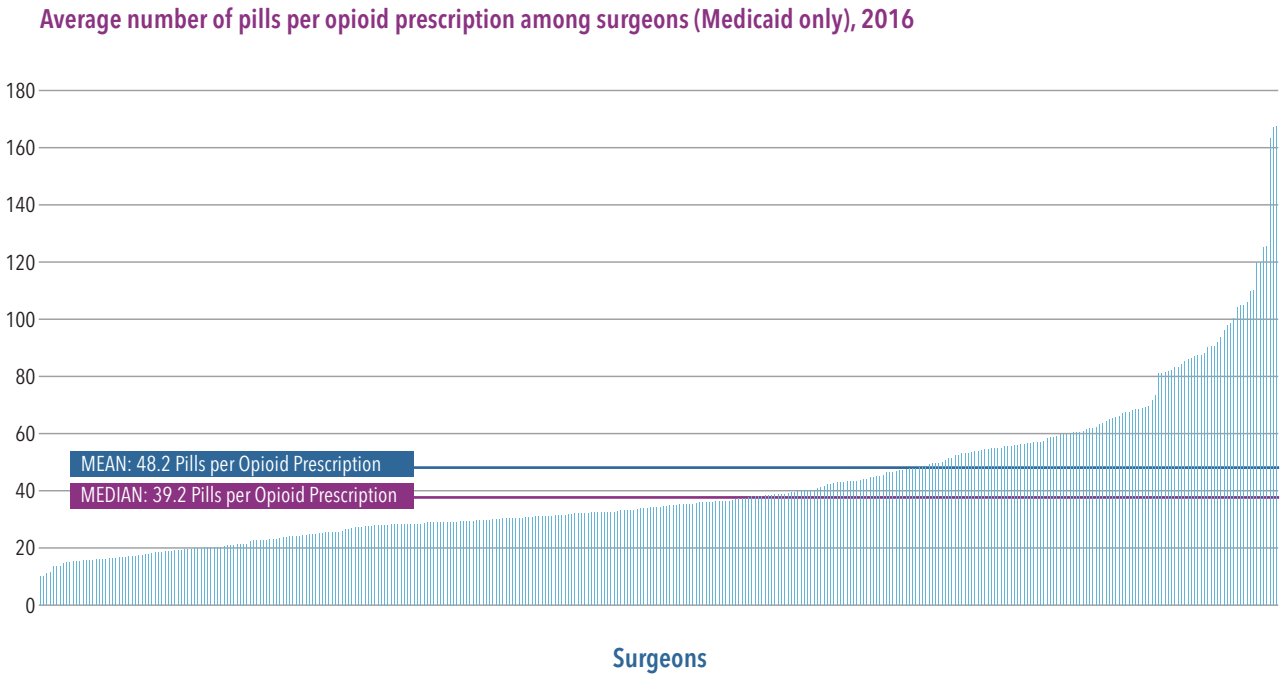
While opioids are often prescribed in primary care for chronic pain, for many opioid-naïve patients their first exposure to prescription opioids is after surgery. The length of that first prescription can put patients on the trajectory for long-term use, which can lead to dependence and addiction. A CDC study showed that nationally, 12-20% of opioid naïve patients whose first prescription for opioids is for 10 days become long-term users.[4] And across surgical subspecialties, 1 in 16 patients who are prescribed opioids become long-term users.[5]

Probabilities of continued opioid use among opioid-naïve patients, by number of days' supply of first opioid prescription, United States, 2006-2015[4]



Surgeons in Philadelphia Commonly Prescribe Opioids for Long Durations

Opioid prescribing among surgeons in Philadelphia is high. The median number of pills per prescription is nearly 40.[6] This translates to 6-10 days of opioids and a 10-20% risk of long-term use.



Most Opioid Pills Are Not Used

Across multiple studies and a range of surgical specialties, patients use only about a third of the opioid pills they are prescribed. Following several common surgeries, between 21% and 75% of patients do not use any opioids or even fill the prescription.[7,8,9] Furthermore, when surgeons reduce the number of pills they prescribe, patients consume *even fewer*.[10] This shows that patients are heavily influenced by the amount prescribed. Clearly, a reduction in opioid prescribing can occur without compromising patient care.

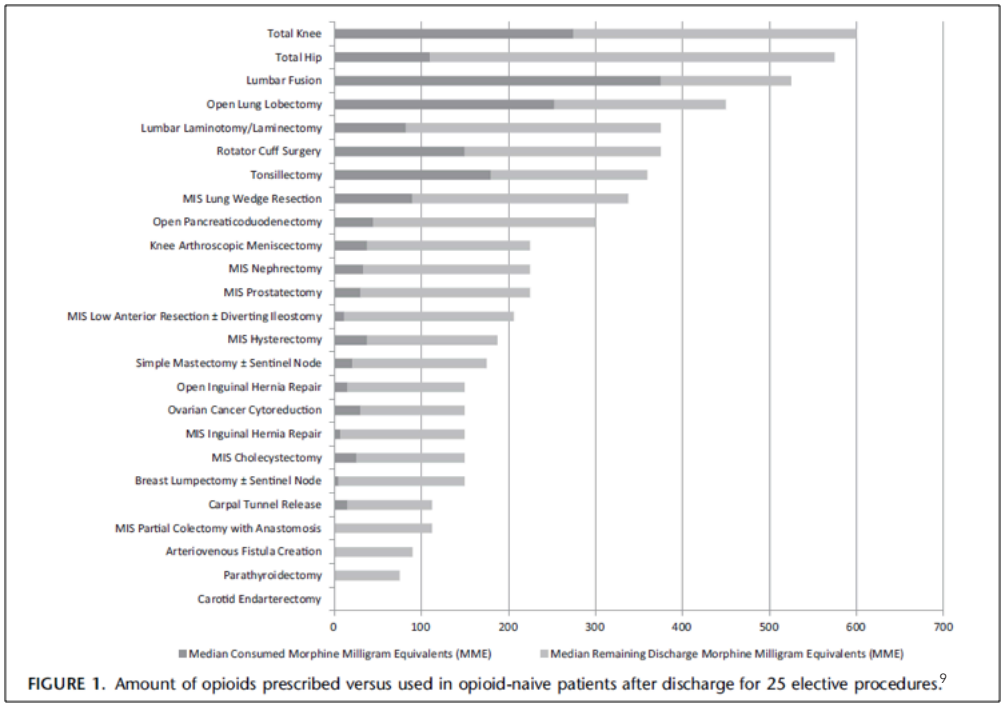
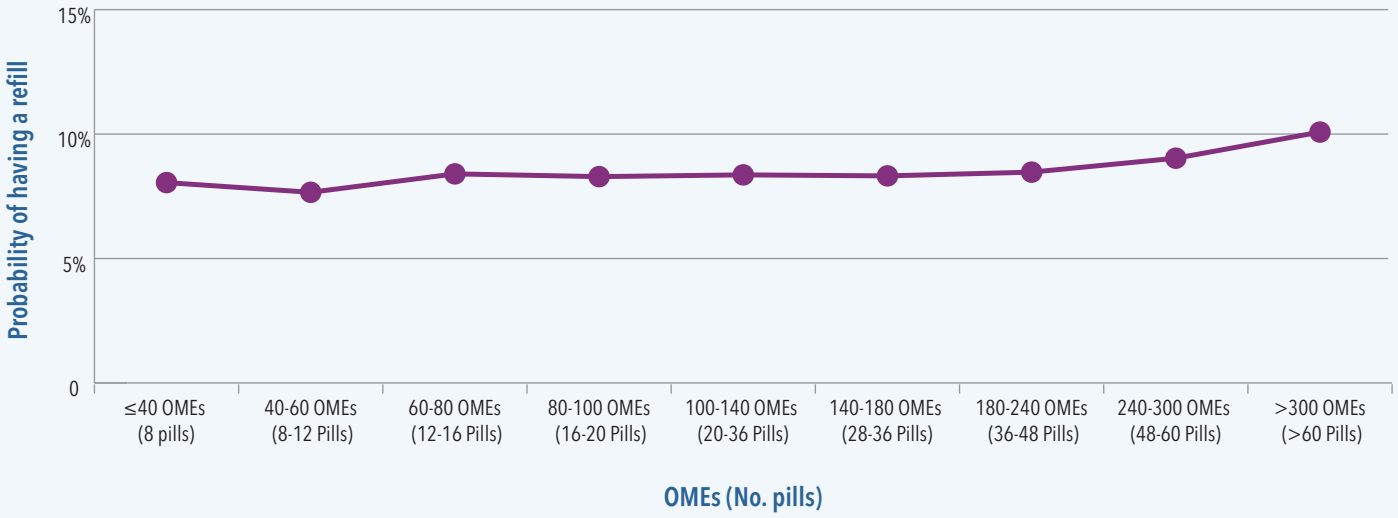


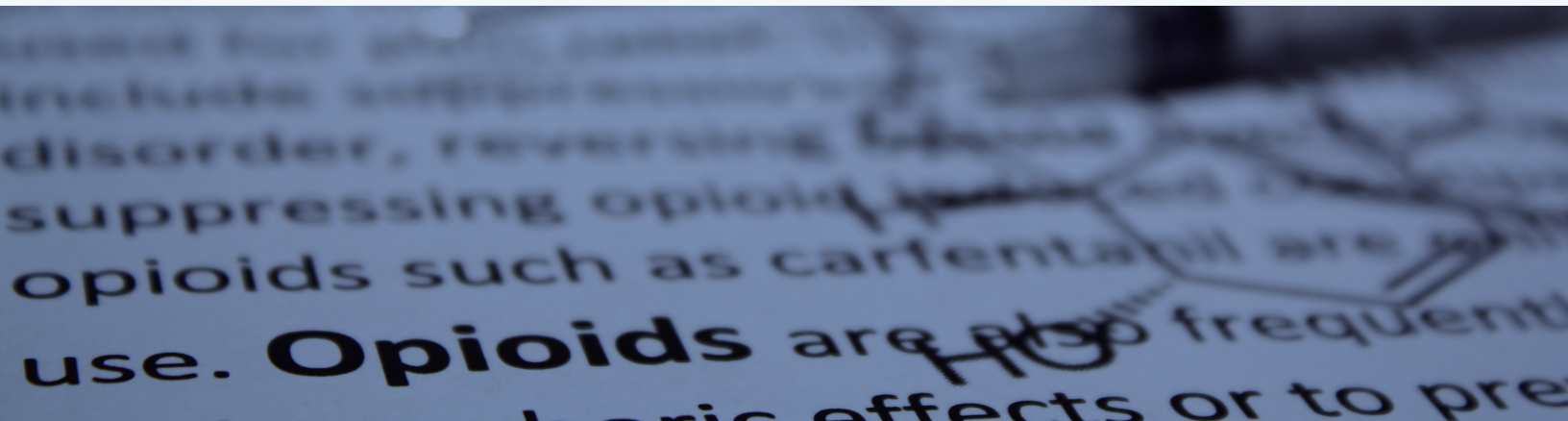
FIGURE 1. Amount of opioids prescribed versus used in opioid-naive patients after discharge for 25 elective procedures.[9]

Large Prescriptions Do Not Prevent Refill Requests

Undertreated pain is a concern of patients and surgeons. However, while there is a perception that providing fewer opioids will result in more calls and refill requests, several studies have shown that is not the case. In one study of over 25,000 patients undergoing a variety of procedures, the refill rate did not differ among patients prescribed between 8 and 60 pills.[11] The same pattern was found regardless of the surgical specialty involved. The enclosed guidelines presume e-prescribing availability, allowing for supplementation if pain control is insufficient. E-prescribing of controlled substances will be required in Pennsylvania in 2019.[12]

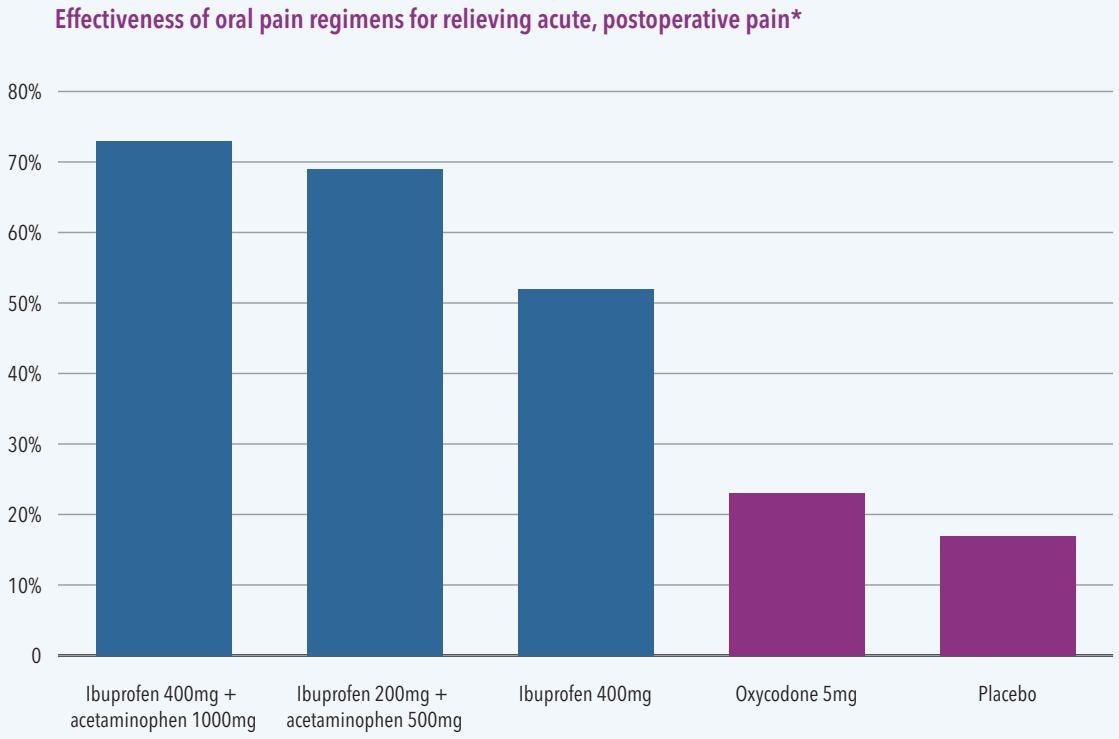
Probability of refill by initial oral morphine equivalent (OME) prescribed[11]





NSAIDS are More Effective than Opioids for Treating Acute Postoperative Pain

Several studies have shown that NSAIDS, particularly in combination with acetaminophen, are more effective than opioids for acute postoperative pain. A Cochrane review found that ibuprofen plus acetaminophen resulted in far greater pain relief (at least 50% of maximum pain relief over 6 hours) than oxycodone, the analgesic effect of which was similar to placebo.[12, 13]



*Studies involved patients with moderate-to-severe pain after wisdom tooth extraction, or after abdominal or pelvic surgery. These are commonly used to test analgesic effectiveness for acute pain after trauma.

MANY PROCEDURES DO NOT NEED OPIOIDS

While pain is to be expected after any procedure, severe pain is often limited to just one or two days. Opioid-naïve patients undergoing minor procedures can be effectively managed without any opioids.

There are Many Effective Alternatives to Opioids

Patients respond differently to different treatment modalities. Patients should be advised to take non-opioid pain medications and participate in non-pharmacologic treatments for their pain, many of which are as effective and safer than prescription opioids. Consult the guidelines for evidence-based options for treating pain.

Managing Patient Expectations

Patients are often concerned about the pain they will experience postoperatively. Acknowledging this concern and reassuring patients that pain is a normal part of the healing process can help them cope. The guidelines include recommendations for how to set appropriate expectations with patients.

Using the Postoperative Opioid Prescribing Guidelines

Please consider the enclosed guidelines if you are going to prescribe opioids to your opioid-naïve patients following major surgery. These guidelines are not intended to replace clinical judgment, but were written using available evidence in the literature to reduce overprescribing while sufficiently treating a patient's pain.

The guidelines differentiate major and minor procedures. Nationally, more than half of all procedures occur on an outpatient basis.[15] Pain experienced by opioid-naïve patients undergoing minor surgeries (such as a carpal tunnel release, a parathyroidectomy or an elective laparoscopic cholecystectomy) is likely to be sufficiently managed with NSAIDS and other non-opioid pain treatment modalities.[8,9] Patients undergoing minor surgery should not be prescribed opioids.

Patients undergoing major surgery may spend days in the hospital recovering. Ideally their pain improves during their inpatient stay such that they do not require opioids after hospital discharge.

However, we recognize that patients may be discharged before their pain is entirely resolved. If opioids are to be prescribed at discharge, it should be in the lowest dose possible and in quantities consistent with the enclosed table. Use of non-opioid analgesics as first-line treatment is always recommended.

The recommended amounts for major surgery were calculated using the following rationale:

- Across multiple studies, approximately 1/3 of the currently prescribed pills are used.
- When fewer are prescribed, approximately 1/2 to 1/3 of the newly prescribed amount is used.
- Therefore, 1/3 of the currently prescribed pills should be the upper limit, and 1/2 of that should be the recommended amount.
- One-third to one-half of patients consume no opioids, so zero should be the lower limit.

Safe Disposal of Unused Medications

Even after major surgery, patients who are prescribed opioids according to these guidelines may not use them all. Patients should be made aware of the risks of misuse of unused medications and instructed on their proper disposal. This includes disposing of them in designated drug take-back boxes in select pharmacies and police stations. Information on locating nearby boxes is included in the accompanying patient education sheet.

Managing Postoperative Pain in Patients with Chronic Opioid Use

While these guidelines are focused on postoperative pain management in opioid-naïve patients, some surgical patients are already long-term users of opioids. The guidelines include information on how to approach postoperative opioid prescribing in this population. Surgeons are also encouraged to discuss the plan for postoperative pain management with the patient's primary care physician.

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