Using Opioids Safely: Acute Opioid Prescriptions and Chronic Use

The major interventions currently underway in the U.S to address the opioid epidemic are measures to reduce opioid supply including policies and regulation intended to reduce the dose and duration of opioid prescriptions for acute pain episodes. Studies have revealed that under certain circumstances and in the presence of various risk factors, opioid prescriptions intended to manage an acute pain episode, resulted in a pattern of long term or chronic opioid use. Also, some studies have revealed significant amounts of unused opioid medication leftover after surgical procedures.

**Acute Prescription Dose and Duration**

- Nearly one half of patients 18 and older who took opioids for more than 30 days in the first year of use continued to use them for three years or longer.
- Among individuals ≥18 years of age with no opioid exposure in the prior 6 months, the largest incremental risks of continued use one year later were prescriptions exceeding 10 or 30 days, a second refill, or cumulative doses exceeding 700 MME. Prescriptions exceeding 30 days were uncommon (7%) but nearly one-third of these individuals exhibited long-term use. Patients who continued opioid therapy for ≥ 1 year were more likely female, have a pain diagnosis before opioid initiation, initiated on higher doses, and be publicly or self-insured.

**Surgical Procedures**

Findings on the long-term use of opioids after surgery are quite variable.

<table>
<thead>
<tr>
<th>Surgery</th>
<th>Findings</th>
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<tbody>
<tr>
<td>Knee and hip arthroplasty, appendectomy, cholecystectomy, simple mastectomy</td>
<td>In opioid-naive patients certain surgical procedures (e.g., knee and hip arthroplasty, appendectomy, cholecystectomy, simple mastectomy) were associated with increased risk of chronic opioid use (≥10 prescriptions or &gt;120 days supply).</td>
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<td>Low risk surgery</td>
<td>In opioid naive older patients (&gt;66 years of age) undergoing low risk surgery, among patient who received opioids in the immediate postoperative period, 10% were still using them 1 year later. Male sex, ≥50 years of age, preoperative history of drug or alcohol misuse, depression, benzodiazepine use, or antidepressant use were associated with chronic opioid use in this population.</td>
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<td>Minor and major surgical procedures</td>
<td>Among U.S. adults, aged 18-64 years without opioid use in the prior year, the rates of persistent opioid use (defined as more than 90 days) were not different between minor and major surgical procedures (5.9%-6.5%). Risk factors independently associated with new persistent opioid use were tobacco or alcohol use, substance use disorders, mood disorders and preoperative pain disorders (back or neck pain, arthritis, centralized pain.</td>
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<td>C-sections</td>
<td>Common post-operative prescribing practices for C-sections routinely results in leftover medication supplies, but a very small proportion of opioid-naive women (approximately 1 in 300) become persistent prescription opioid users following cesarean delivery. Preexisting psychiatric comorbidity, certain pain conditions, and substance use/abuse conditions identifiable at the time of initial opioid prescribing were predictors of persistent use.</td>
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The optimal dose and duration of an opioid prescription for postoperative pain relief depends on the patient and procedure. Based on analysis of the median duration of the initial prescription and initial refill request after common surgical procedures, the optimal length may be somewhere between 4 to 9 days for general surgery, 4 to 13 days for women’s health procedures, and 6 to 15 days for musculoskeletal procedures. Many healthcare systems and hospitals have moved to a 7 days or less default.
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Citations


