Opioid Stewardship Toolkit

Version 3.0
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Introduction

This approach to opioid stewardship comes in the form of five components:

1. Understanding the problem
2. Preoperative expectation setting
3. Screening for at-risk behavior
4. Optimizing perioperative practices
5. Safe storage and disposal of unused opioids

The first section focuses on the opioid crisis and provides resources and background information to promote awareness. Subsequent sections offer specific, evidence based-strategies that can be implemented by the surgical community to better address perioperative pain management.

The toolkit can be read front to back but does not need to be implemented as a bundle; each opioid stewardship component stands on its own. Ultimately, the components your institution chooses to implement will depend on the needs of your local community and hospital.

We encourage you to follow the DMAIC process and begin with the “Define” step to identify potential problem areas. This will help you choose which toolkit strategies may work best in your hospital. Once your ISQIC team identifies several possibilities, we suggest you reach out to appropriate hospital staff to build your project team, assess feasibility, and craft a problem statement. For a refresher on the DMAIC process, please review the modules available on isqicdata.org under Online Quality and Process Improvement Modules.

We hope that you find the resources and case studies in this toolkit useful and that you can easily tailor the recommended strategies to your local context and needs.
How to Use the Toolkit

To make it easy to navigate, this PDF has the following functions:

1. The PDF is searchable. Type a page number or word into the search box.
2. Clicking on any section header or sub-header in the Table of Contents will take you directly to the section.
3. Clicking on the ISQIC logo in the bottom right corner of each page will take you back to the Table of Contents.
4. Clicking on blue underlined text will take you to a webpage or resource available on the Internet.
5. Double clicking on any caption that says “Double click image to open attachment” will open the attachment. To get back to the Toolkit, click on 'Close' in the file menu to re-open the Toolkit.
6. Adobe Reader is the preferred method for viewing attachments.

Feedback on the Toolkit

We hope this toolkit will help your hospital and surgical practices create an Opioid Stewardship Program that best fits your local context and needs. We welcome all feedback so that we can update the toolkit to highlight new strategies, clarify existing ones, and make it more user-friendly. Please send any questions, comments, or recommendations to info@isqic.org.

Development Contributor

This toolkit was developed by the Illinois Surgical Quality Improvement Collaborative (ISQIC) with support from Pacira Pharmaceuticals, Inc.
Assembling a Multi-Disciplinary Team

Given that effective opioid stewardship needs to be implemented across the continuum of care, it requires buy-in from diverse clinicians and staff. Therefore, we recommend that you create a multi-disciplinary team to implement the strategies found in this toolkit. As you’ve learned through the ISQIC quality and process improvement curriculum, a project team with defined ownership, accountability, and role definitions is critical to success. A project team consists of an executive sponsor, departmental sponsor(s), clinical sponsor, process owner, improvement leader, and other members. Click here for a review of team roles, as defined in the ISQIC curriculum.

Team members are responsible for contributing to a project’s direction and implementation. Therefore, it is important to ensure that the team represents all relevant disciplines and includes relevant stakeholders. In addition to your ISQIC team, you may want to consider adding a surgeon, anesthesiologist, OR manager, educator, in- and out-patient nurse, patient safety representative, and pre-, intra-, and postoperative service representative.
Overview of the Opioid Crisis

Since 2014, complications from opioid analgesics have been the leading cause of injury-related death in the U.S., surpassing motor vehicle accidents.\(^1,2\) In 2016, there were about 46 deaths per day, more than 16,790 annually, involving prescription opioids. Nearly 7 million adults (aged 12 or older) reported being current nonmedical users of prescription drugs in 2012, and 16.7 million individuals used prescription drugs for a nonmedical purpose.\(^3\) Of the nearly 7 million nonmedical users, 70% obtained their drugs through diversion.\(^1,4,5\) Diversion is the medical and legal concept of transferring any legally prescribed controlled substance from the individual for whom it was prescribed to another person for any illicit use.

Figure 1. Opioid sales relative to opioid deaths over time in the United States

As shown in the figure above, the rise in the number of opioid prescriptions parallels the increase in opioid-related deaths.
While much of the focus on opioid prescribing has been directed at primary care and chronic opioid use, surgeons play a pivotal role in this crisis in two critical ways: (1) over-prescribing opioids following surgery\textsuperscript{1,5-11} and (2) inadequately educating patients about post-surgical pain management.\textsuperscript{12-15} Surgeons wrote 9.8\% of all opioid prescriptions filled in 2012 or 28.3 million prescriptions.\textsuperscript{6} Estimates suggest that between 70-90\% of the opioid pills currently prescribed following surgery go unused by the intended user. These present a readily accessible supply for diversion.\textsuperscript{1,6,7,16,17}

\textbf{Figure 2. Opioid pills consumed following orthopedic hand procedure\textsuperscript{10}}

The opioid crisis is a complex and evolving problem. There is no one-size-fits-all strategy that will work in every community or hospital context, just as there is no one major pathway to opioid overuse and abuse. There are, however, several best practices which we can apply to perioperative pain management to decrease over-prescribing of opioid pills and help address the current opioid crisis.
Provider-Centered Strategies

Surgeons and other prescribers may be unfamiliar with the current statistics or unsure of how they fit into the larger context. In order to help you engage front line providers (surgeons, nurse practitioners and others with prescription writing power) in a discussion about surgery’s role in this crisis and foster stakeholder buy-in, we created a PowerPoint template. It contains national and state-level data. For more local data, we suggest that you contact your Local Department of Public Health. The PowerPoint template is also available on isqicdata.org.

Additionally, the Centers for Disease Control and Prevention (CDC) created an online series of training modules for healthcare providers that may be helpful. These are primarily meant for providers who are managing chronic pain, rather than acute pain, but each module is accredited for continuing medical education credits for physicians and nurses. The first module, Addressing the Opioid Epidemic: Recommendations from CDC, is now available.
ISQIC Opioid Education Modules

Opioid education modules were developed for three target audiences. The opioid education modules are a helpful resource for physicians, nurses, pharmacists, and others involved in surgical perioperative care. To create the modules, content experts were engaged and an extensive literature review was performed. These interactive modules provide the user with information as well as scenarios and activities to test their knowledge.

These modules are able to be completed online (ISQIC Website) or integrated directly into and completed through your hospital’s Learning Management System (LMS). Contact opioidreduction@isqic.org if you would like a non-branded version of the education modules for your LMS.

Click Here to Start the Modules

**Module Content**

1. Opioid crisis overview
2. Safe and effective pain management
3. Setting patient expectations
4. Opioid safety and disposal

**Learning Objectives**

1. Apply opioid-sparing strategies in postoperative pain management plans.
2. Explain the purpose of the Illinois Prescription Monitoring Program.
3. Apply the key components of setting effective pain management expectations with patients.
4. Relay key principles of safe opioid use, storage, and disposal to patients, caregivers, and other healthcare professionals.
**Interactive Features**

**Activities**

Activities can be found throughout the modules to engage the user and reiterate key concepts.

**Example**

**Preoperative Conversations to Set Expectations**

Here are a few best practices for discussing pain management with your patients before and after surgery. Drag and drop each conversation best practice icon to the corresponding talking point example.

1. Normalize worry about postoperative pain
2. Educate patients about opioid adjuncts that can improve pain
3. Focus on goals

- “There are lots of ways to manage pain that don’t involve opioids. Let’s explore some options that might work for you.”
- “Having some pain from surgery is normal, but current pain management techniques are very good and the pain is temporary.”
- “By limiting the opioids you take preoperatively, we have a greater ability to safely increase opioid dosage, should you need it, to address your pain after surgery.”

**Knowledge Checks**

At the conclusion of each module, a series of scenario-based Knowledge Check questions test the user on key concepts from the module.

**Example**

**Knowledge Check 1**

Which of the following information would **not** be provided through the IL-PMP to inform your prescribing decisions?

- The name and location of the pharmacy where Paul filled his last Percocet prescription.
- The date and quantity of the last filled Plavix prescription.
- Whether Paul has filled multiple Percocet prescriptions, from different providers, within the last month.
- The quantity of pills in the last filled Percocet prescription.
Preoperative Expectation Setting

Preoperative expectation setting is a critical component to postoperative pain management and appropriate use of opioids. A wide range of influences contributes to patient postoperative pain, making individual pain experience unpredictable. However, research indicates that patient expectations are tied to outcomes. Setting expectations and educating patients is an opportunity to improve the patient experience and help them set a realistic goal for postoperative pain.

Effective expectation setting involves more than providing patients with information. There are many things that impact education delivery and patient expectations. For example, provider body language, an emotional connection between patient and provider, provider understanding, and patience on behalf of the provider can all impact the patient’s experience. Awareness of, and sensitivity to, a patient’s prior experiences and cultural beliefs is equally important.

Provider-Centered Strategies

Below is a document highlighting best practices for preoperative expectation setting. The document is also available on isqicdata.org.

Setting Appropriate Expectations for Postoperative Pain: Best Practices

1. Surgery is stressful, but current pain management techniques are very good and the pain is temporary. It is normal for patients to be very worried about pain after surgery. It is important to focus on the knowledge that the pain will improve in a few days and that we can usually manage post-operative pain very well.

2. The goal of controlling pain is to restore function. It is important for patients not to focus on getting their pain score down to zero. Instead, the goal of pain control is to allow for rehabilitation of function. Providers must work with patients to achieve safe pain relief that allows patients to actively participate in their recovery (e.g., physical therapy).

3. Clear communication between patients and providers is essential. Pain control, expectations, patient participation, and surgical outcome are linked together. Proper communication and treatment of pain can impair pain control function, psychological well-being, and quality of life. It is important to stress that patients take an active role in their recovery and work through expected pain to achieve the best possible outcome.

4. Patients should be open to usual adjuvants. The perioperative team may suggest medications (e.g., gabapentin) or procedures (e.g., nerve blocks) the patient may not be familiar with. The surgical team can reinforce that keeping an open mind about adjunct treatments could improve pain.

5. Pain management expectations do not end at hospital discharge. Recovery can take weeks or even months, and the patient’s baseline pain may be altered during that time period. Surgery is not a quick fix; it takes dedication and work on the patient and provider sides.

6. Limiting perioperative opioids is in the best interest of the patient. By limiting opioids perioperatively, there is greater ability to safely increase dosages to address acute postoperative pain. If your patient is on chronic opioids, consider working with their primary care doctor or pain management doctor to limit their current regimen prior to surgery.

Patient-Centered Strategies

Pain after surgery is normal. It is important for patients to understand that the goal for pain management postoperatively is to control pain to a level that restores function. Below is a patient pamphlet that can be distributed or displayed in patient rooms. The pamphlet is also available on isqicdata.org.

In addition to the resources listed in the patient pamphlet, the American College of Surgeons created Operation Brochures for Patients for a number of general surgery procedures. These brochures can be found on the ACS website [ACS Operation Brochures](http://www.acs.org) and are available to download. Each brochure provides patients information on how to prepare for their specific operation and what to expect postoperatively.

The Lock Your Meds campaign is another resource that can be given to patients. The Lock Your Meds campaign is designed to educate adults on the ways they are “unwitting suppliers” of prescription medications to others in order to reduce prescription drug abuse. To accomplish this goal, Lock Your Meds provides a variety of patient resources including print ads that can be customized to your institution, parent guides, medication inventory cards, and a MEDucation kit.
Medication Reconciliation

Medication reconciliation should be performed prior to a provider prescribing a patient an opioid medication. This will confirm whether or not the patient has an active benzodiazepine prescription and to determine the patient’s opioid medication prescription history.

Benzodiazepines and Opioids

According to the National Institute on Drug Abuse, greater than 30 percent of all opioid related overdoses also involved benzodiazepines. Between 2001 and 2013, the concurrent use of benzodiazepines and opioids increased from 9% to 17% (80% relative increase) respectively. In the U.S., approximately 12.5% of patients prescribed an opioid medication are also concurrently prescribed a Benzodiazepine. Benzodiazepines are a commonly prescribed sedative used to treat anxiety and insomnia by increasing the level of GABA neurotransmitters in the brain. Because both benzodiazepines and opioids sedate and reduce users breathing as well as impair cognitive function, taking both types of prescriptions at the same time increases the risk of emergency department visits and drug-related admissions to the hospital.

Due to the quadrupled risk of accidental overdose, the CDC recommends against prescribing an opioid medication to a patient in conjunction with or to a patient with an active benzodiazepine prescription. However, if co-prescribing an opioid medication to a patient with an active benzodiazepine prescription cannot be avoided the following actions should be completed. If a patient is on a chronic benzodiazepine, advise the patient to take the minimum necessary of the benzodiazepine prescription while taking the opioid medication. Providers should educate the patient on the increased risk for respiratory depression and overdose if opioids and benzodiazepines are used concurrently.

Other medications that could interact with opioids include but are not limited to antihistamines, sleep aids, anti-anxiety medications, muscle relaxers, sedative hypnotics, and other substances that cause drowsiness.

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Brand Name Equivalents</th>
</tr>
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<tbody>
<tr>
<td>Chlordiazepoxide</td>
<td>Librium</td>
</tr>
<tr>
<td>Clonazepam</td>
<td>Tranxene</td>
</tr>
<tr>
<td>Diazepam</td>
<td>Valium</td>
</tr>
<tr>
<td>Flurazepam</td>
<td>Dalmane</td>
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<tr>
<td>Oxazepam</td>
<td>Serax</td>
</tr>
<tr>
<td>Risperidone</td>
<td>Risperidone</td>
</tr>
<tr>
<td>Clozapine</td>
<td>Provan</td>
</tr>
<tr>
<td>Mirtazapine</td>
<td>Venlafax</td>
</tr>
<tr>
<td>Quazepam</td>
<td>Doral</td>
</tr>
</tbody>
</table>
Avoid Prescribing from Multiple Providers

It is important to determine whether the patient has received opioids from other providers to avoid overprescribing. The *Illinois Prescription Monitoring Program (ILPMP)* database allows you to determine whether a patient has received other prescriptions for controlled substances in Illinois, Indiana, Iowa, Kentucky, and Michigan. The Illinois PMP is a government program that compiles information on controlled substance prescriptions (Schedules II, III, IV and V). Retail pharmacies throughout Illinois report data on prescriptions of controlled substances on a daily basis. By checking the IL PMP, providers can see the last 6 months of controlled substance prescriptions for a patient. This information allows providers to detect and prevent “doctor shopping,” use more caution in prescribing when needed, and detect pharmacy errors or fraudulent use of DEA numbers.

**Illinois 2018 PMP Law**

On December 13, 2017, new requirements of prescribers of controlled substances were signed into law in Illinois. As of January 1, 2018, every prescriber with an Illinois Controlled Substance License is required to register with the ILPMP. The act signed into law, Illinois Controlled Substance Act, also requires all prescribers, or his/her designee, to look-up each patient in the PMP to determine their access to controlled substances prior to giving a patient an initial prescription for any Schedule II narcotics. Please visit the [IL PMP Website](#) for more information and Frequently Asked Questions. For information about Drug Schedules, refer to the Drug Enforcement Administration’s website [Drug Scheduling](#).

Benefits of mandated PMP laws include:

- Increased enrollment in the PMP
- Increased utilization of the PMP
- Decreased multiple provider episodes (doctor shopping)
- Decreased opioid prescribing
Provider-Centered Strategies

Direct integration of the IL-PMP into your hospital’s EMR eliminates the need to exit your system and facilitates faster, easier access to prescribing data. The Illinois 2018 PMP Law requires the PMP to be integrated into all hospital electronic medical records by 2021.

Screening for At-Risk Behavior

Screening for at-risk behavior should be part of the preoperative assessment for all surgical patients. We strongly encourage you to partner with a social worker or other mental healthcare provider to create a screening training plan for surgeons and nurses.

Provider-Centered Strategies

Studies suggest that 6% of patients who receive an opioid analgesic for the first time during a surgical encounter are still using a prescription opioid 6 months later.\textsuperscript{22} Populations at an increased risk of chronic drug abuse include teenage adolescents, the elderly (>50 years old), people taking antidepressants and/or benzodiazepines at the time of opioid prescribing, and people with a history of alcohol abuse, drug abuse, or who are taking opioids prior to surgery.\textsuperscript{12,23,11} Screening for drug use risk can range from high-level screening to in-depth screening, and we recommend consulting the National Institute on Drug Abuse’s (NIDA), \textit{Screening for Drug Use in General Medical Settings}, for a comprehensive resource on integrating drug screening into your practice.

By screening patients prior to surgery, tailored approaches to pain management can be used to address those at higher risk for persistent use. Two simple screening strategies are provided below. We suggest screening all patients preoperatively. If the patient screens at increased risk we recommend communicating with the patient’s primary care physician and the anesthesia team prior to surgery to coordinate a pain management strategy. The CDC recommends the following risk mitigation strategies: monitoring using the Prescription Monitoring Program (PMP) and/or User Device Trackers, opioid treatment agreements, opioid tapering, referral to pain specialists or substance abuse treatment, and/or co-prescribing Naloxone.\textsuperscript{26} The National Institute on Drug Abuse (NIDA \textit{Prescribing Resources}) provides resources in the form of PDFs and videos for prescribers including information on how to recognize aberrant drug taking behaviors, administer a narcotic contract, and sample patient opioid agreement forms.

Patients who have formerly abused illicit or prescription drugs in the past can present a difficult challenge. They may be concerned that any opioid analgesics may trigger a relapse. Therefore we strongly encourage discussing these concerns with patients prior to surgery and making an extra effort to minimize or eliminate all opioid analgesics from the pain management strategy. Furthermore, it is very important to coordinate their care with their treating physician (either an addiction medicine specialist or their primary care physician).
Ideally, surgeons would integrate the **patient-completed Opioid Risk Tool (ORT)** into their practice. The ORT can be administered and scored in less than 1 minute and has been validated in both male and female patients. The tool should be administered at the preoperative appointment before prescribing any opioids.

A score of 3 or lower indicates low risk for future opioid abuse, a score of 4 to 7 indicates moderate risk for opioid abuse, and a score of 8 or higher indicates a high risk for opioid abuse. Patients who score 8 or above should be referred for formal screening. Formal screening may be conducted by providers such as social workers, psychologists, addiction counselors, and other providers identified by your institution.

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**Opioid Risk Tool**

<table>
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<tr>
<th>Risk Each Box That Applies</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family history of substance abuse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illegal drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rx drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal history of substance abuse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illegal drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rx drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age between 15—45 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of preadolescent sexual abuse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIDS, HIV, bipolar, schizophrenia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scoring totals</td>
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<td></td>
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</tbody>
</table>

Questionnaire developed by J. W. Webster, MD to assess risk of opioid addiction.


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ISQIC Short Screen

Although we recommend integrating the Opioid Risk Tool into your pre-operative assessment, we recognize most providers already ask patients about current and former drug use. There is a one question screener, validated in primary care, that we believe would work well in surgery. The question asks “How many times in the past year have you used an illegal drug or used a prescription medication for non-medical reasons?”

If patients respond with 1 or more times, they should be referred for formal screening using the 10-item Drug Abuse Screening Test (DAST). Formal screening may be conducted by providers such as social workers, psychologists, addiction counselors, and other providers identified by your institution.

Access to Pain and Addiction Specialists

If a patient screens at risk for opioid misuse/abuse/addiction using an opioid risk screening tool, e.g., the Opioid Risk Tool, referral to a pain and/or addiction management specialist may be necessary. Pain management specialists are specifically trained in the evaluation, diagnosis, and treatment of a variety of different types of pain. Addiction specialists are specialized physicians and psychiatrists who are specially trained to provide prevention, screening, intervention, and treatment for substance use and addiction.

Identifying Specialists in your Area

According to American Board of Pain Medicine, there are approximately 2,300 board-certified pain specialists around the United States. Pain and Addiction specialists in your area can be located using the American Board of Addiction Medicine's Doctor Locator. The Boston Scientific Corporation also provides a Pain Management Specialist locator.
There is excellent evidence to suggest that adequately managing a patient’s pain in the perioperative setting has short and long-term benefits. Patients are more active earlier in their postoperative course, they have higher satisfaction with their surgery and they are less likely to develop chronic pain. Depending on your setting, perioperative pain management may be completely managed by a medical team or anesthesia team, completely managed by the surgical team, or co-managed by a surgery and pain management team. Therefore, rather than provide specific pain management guidelines, we have chosen to focus on global principles of perioperative pain management that should help you better manage your patient’s pain regardless of the unique setting you practice within. These methods also align with any Enhanced Recovery After Surgery™ (ERAS) protocols you may be simultaneously implementing on specific services.
The goal of this section is to give global strategies that will help your team reduce reliance on opioid analgesics for pain control while maximizing postoperative function and patient satisfaction. To that end, we created a PowerPoint template providing an overview of the perioperative practices that you can use when speaking to front line providers.

Use of Non-Opioid Alternatives

We need to shift our mindset from providing a pill that is “strong enough” to address a patient’s pain to providing a comprehensive strategy for controlling pain which may require opioid medications. Combining opioid medication with alternative medications such as acetaminophen or ibuprofen is a popular strategy because the combination of the two medications works better than either one alone. Multimodal pain management is a mainstay of pain management during a surgical procedure, but too often the strategy is not employed following surgery. Multimodal pain management can help decrease opioid usage post-operatively as it has done for intra-operative pain management.

Provider-Centered Strategies

We suggest thinking of the figures below (Figures 3 and 4) when developing your own pain management strategy. Alternative forms of pain control, such as the use of pre-injection local anesthetic and cold packs on the surgical site, should be the first line of treatment. Oral opioids should be used whenever possible before using intravenous opioids. By layering your pain management strategy, the amount of opioid analgesic required will decrease, and patients will suffer from fewer of the opioid-related side effects.
In the above pyramid, each pain management option has both pros and cons associated with it.

- **IV Opioids**
  - **Pros**: short-acting, treat acute pain well
  - **Cons**: carry a risk of respiratory depression, abuse, and addiction; may cause nausea, vomiting, itching, drowsiness, and/or constipation

- **Oral Opioids**
  - **Pros**: treat acute pain well, effect lasts 4-6 hours
  - **Cons**: carry a risk of respiratory depression, abuse, and addiction; may cause nausea, vomiting, itching, drowsiness, and/or constipation

- **Non-Opioid Alternatives**
  - **Pros**: lessen the risk of opioid-related side effects and adverse events, have the lowest side effect profile
  - **Cons**: side effects related to the non-opioid medication chosen should be considered prior to prescribing. Examples include bleeding risks from NSAIDs.
The current guidelines on managing postoperative pain provide a good institutional reference. They were created by the American Pain Society, the American Society of Regional Anesthesia and Pain Medicine, and the American Society of Anesthesiologists’ Committee on Regional Anesthesia, Executive Committee, and Administrative Council. The guidelines are available [here](#). The Safe Pain Control Brochure created by the American College of Surgeons also provides information regarding pain control options.

### Lowering the Default Quantity Prescribed

Research shows that most surgeons prescribe opioids in quantities significantly greater than patients require to manage post-operative pain. State governments, insurance companies, and pharmacies are also working towards lowering opioid prescription quantities by limiting the number of days of an opioid prescription and restricting the total number pills prescribed. CVS Pharmacy, Walmart, and Express Scripts all enacted new opioid prescription limits for acute pain in 2017.\(^{31-33}\)
Government Strategies

New legislation addressing the opioid crisis is continually being signed into law at the federal and state level. There are numerous sources to stay updated regarding new opioid legislation. The American Academy of Pain Medicine posts regular updates regarding any pain-related legislation. The National Council details governor-led initiatives in each state to address the opioid epidemic.

Example Legislation

By July 2017, approximately 23 states passed and implemented legislation dictating an opioid prescription limit and/or other opioid prescribing requirements. In 2017, the New Jersey Senate passed legislation limiting the initial opioid prescription to a five day supply for acute pain events, such as surgery. Additionally, the law requires prescriptions written for acute pain be the lowest effective dose of immediate-release opioids. The State of Ohio also implemented new acute pain opioid prescribing rules in 2017. A maximum of a seven day opioid prescription can be given to adults and the total MME (morphine milligram equivalents) per day cannot exceed 30 MME for acute pain. In an effort to combat the opioid crisis, Centers for Medicare and Medicaid Services (CMS) developed new opioid policies and recommendations that go into effect on January 1, 2019.

![Image of laws setting limits on certain opioid prescriptions]

Provider-Centered Strategies

We included recommended quantities by procedure type below. These recommendations are based on a study conducted at Dartmouth Hitchcock Medical Center (available here) and an internal analysis conducted at Northwestern Memorial Hospital. They represent the best information available and will meet the needs of most patients; however, some patients may require an additional prescription. The list is also available here as a PDF.

_Double click image to open attachment_

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<table>
<thead>
<tr>
<th>PROCEDURE</th>
<th>Recommended quantity of opioid pills to prescribe</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Surgery</td>
<td></td>
</tr>
<tr>
<td>Laparoscopic/Robotic</td>
<td>15</td>
</tr>
<tr>
<td>Appendectomy</td>
<td>15</td>
</tr>
<tr>
<td>Cholecystectomy</td>
<td>15</td>
</tr>
<tr>
<td>Inguinal hernia repair</td>
<td>15</td>
</tr>
<tr>
<td>Ventral hernia repair</td>
<td>15</td>
</tr>
<tr>
<td>Hiatal hernia repair</td>
<td>15</td>
</tr>
<tr>
<td>Colectomy</td>
<td>25</td>
</tr>
<tr>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>Umbilical hernia repair</td>
<td>15</td>
</tr>
<tr>
<td>Inguinal hernia repair</td>
<td>20</td>
</tr>
<tr>
<td>Colectomy</td>
<td>25</td>
</tr>
<tr>
<td>Whipple</td>
<td>30</td>
</tr>
<tr>
<td>Liver resection</td>
<td>30</td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Melanoma and skin excision procedures</td>
<td>15</td>
</tr>
<tr>
<td>Renal biopsy</td>
<td>5</td>
</tr>
<tr>
<td>Partial mastectomy (lumpectomy)</td>
<td>15</td>
</tr>
<tr>
<td>Free skin graft</td>
<td>25</td>
</tr>
<tr>
<td>Hemorrhoidectomy</td>
<td>20 (use sparingly, causes constipation)</td>
</tr>
<tr>
<td>Division of wound</td>
<td>Variable</td>
</tr>
<tr>
<td>Otolaryngology (ENT)</td>
<td></td>
</tr>
<tr>
<td>Tonsillectomy</td>
<td>5</td>
</tr>
<tr>
<td>Thyroidectomy</td>
<td>10</td>
</tr>
<tr>
<td>Parathyroidectomy</td>
<td>10</td>
</tr>
<tr>
<td>Obstetrics and Gynecology</td>
<td></td>
</tr>
<tr>
<td>Dilation and curettage</td>
<td>5</td>
</tr>
<tr>
<td>Hysterectomy</td>
<td>5</td>
</tr>
<tr>
<td>Cesarean section</td>
<td>15</td>
</tr>
<tr>
<td>Laparoscopic hysterectomy</td>
<td>15</td>
</tr>
<tr>
<td>Open hysterectomy</td>
<td>25</td>
</tr>
<tr>
<td>Orthopedic Surgery</td>
<td></td>
</tr>
<tr>
<td>Total knee replacement</td>
<td>25</td>
</tr>
<tr>
<td>Total hip replacement</td>
<td>25</td>
</tr>
<tr>
<td>Thoracic Surgery</td>
<td></td>
</tr>
<tr>
<td>Video-assisted thoroscopic lobectomy</td>
<td>15</td>
</tr>
<tr>
<td>Open lobectomy</td>
<td>25</td>
</tr>
<tr>
<td>Chemical or mechanical pleurodesis</td>
<td>25</td>
</tr>
<tr>
<td>Urology</td>
<td></td>
</tr>
<tr>
<td>Robotic prostatectomy</td>
<td>15</td>
</tr>
<tr>
<td>Open prostatectomy</td>
<td>25</td>
</tr>
<tr>
<td>Vascular Surgery</td>
<td></td>
</tr>
<tr>
<td>Carotid endarterectomy</td>
<td>15</td>
</tr>
<tr>
<td>Coronary artery bypass</td>
<td>25</td>
</tr>
</tbody>
</table>
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Intermountain Healthcare created Acute Pain Opioid Prescribing Guidelines using a stoplight stop-caution-go approach to prescribing. The document is also available on isqicdata.org.

The Institute for Safe Medication Practices Canada created an infographic illustrating the harms of opioid therapy as dosage increases in chronic pain patients.
EMR Clinical Decision Support Systems

Clinical Decision Support Systems (CDSS) have been studied in recent years to evaluate their effect on clinical outcomes, healthcare processes, workload and efficiency, patient satisfaction, cost and provider use. Studies have shown that CDSS are effective at improving health care process measures related to performing preventative services, ordering clinical studies, and prescribing therapies. One systematic review found strong evidence that CDSS that automatically delivered system-initiated recommendations to providers at the point of care were effective at improving appropriate treatment ordering or prescribing.\(^{28}\)

Numerous hospitals across the country are working with their EHR providers to create CDSS within their hospital EMR that gives them the capability to reduce the default dispense quantity for opioid prescriptions. Evidence for this intervention is lacking as these interventions are currently underway, but they have excellent face validity.

Electronic Prescribing

Electronic prescribing of controlled substances (EPCS), initiated in 2010 by the Drug Enforcement Agency, enables providers to electronically write prescriptions and send them directly to pharmacies but relatively few clinicians use this option. EPCS streamlines the prescription process, prevents forged prescriptions due to a two-factor identification system, and offers clinicians comfort in knowing you can prescribe a smaller quantity of opioids and remotely re-order for your patients if necessary.\(^{22}\)

Provider-Centered Strategies

We envision your involvement in this strategy as an advocate for EPCS and have included slides in the Optimizing Perioperative Practices PowerPoint template that you can use to discuss e-prescribing with your hospital administration. The PowerPoint template is also available on isqicdata.org. Additional resources on EPCS are included in the Appendix.
Safe Storage and Disposal of Unused Opioids

Provider-Centered Strategies

Providing an opportunity for patients to safely dispose of unused opioids presents an opportunity for surgeons to actively close the loop and prevent diversion. Under existing federal and state law, three options currently exist:

1. Clinics/hospitals with an on-site pharmacy can install a retrieval box where patients can dispose of medications, including controlled substances;
2. Clinics/hospitals can form partnerships with organizations who already have retrieval boxes; and
3. Scheduled drug take back days.

Drug Retrieval Boxes

Drug retrieval boxes are a safe, effective, and sustainable way to dispose of excess and expired opioid medications. These boxes can currently be found in a number of police stations and pharmacies across the United States.

Installing a drug retrieval box in your clinic and/or hospital increases patient’s accessibility to safe opioid medication disposal methods. The process of installing a drug retrieval box requires engagement of numerous stakeholders, deciding the location of the box, selecting a retrieval box vendor, determining ongoing security and staffing needs, developing policies and procedures, training your staff, and providing patient education and raising awareness.
Drug Take Back Days

The Drug Enforcement Administration has promoted biannual National Drug Take Back Days since 2010. These events provide an opportunity for Americans to safely dispose of their unused opioid medications.

Participating in a National Drug Take Back Day at your local hospital involves engagement of hospital and community stakeholders, DEA and/or Police coordination, marketing, and a number of other logistical factors. For more information about National Drug Take Back Days, visit the DEA website.
Host a take back site on National Prescription Drug Take Back Day!
Show your hospital’s commitment to safe prescription drug stewardship.
Saturday, April 28, 2018
10am to 2pm
https://takebackday.dea.gov/

<table>
<thead>
<tr>
<th>Your hospital:</th>
<th>DEA or local law enforcement:</th>
</tr>
</thead>
</table>
| □ Let the DEA know you’re a collection site  
  Go to https://takebackday.dea.gov/ | ✓ The DEA lists your hospital as a collection site on www.dea.gov |
| □ Partner with the DEA or your local police department.  
  Law enforcement presence is mandatory! | ✓ Provides security |
| DEA Chicago Division contacts:  
  Erin Johnson  
  312-582-6973  
  Erin.B.Johnson@usdoj.gov  
  James Porter  
  312-582-6983  
  James.K.Porter@usdoj.gov  
  Local PD contact: __________________________ |   |
| □ Involves pharmacy  
  Pharmacy contact: __________________________ |   |
| □ Partner with other community groups  
  (e.g. environmental groups)  
  Possible community groups: __________________________ |   |
| □ Decide on location (e.g. parking lot) | ✓ Provides logistic support and supplies  
  ✓ Cones  
  ✓ Collection receptacles |
| □ Clarify and address any legal issues or concerns  
  Legal contact: __________________________ |   |
| □ Develop signage to help with traffic flow |   |
| □ Market the Take Back Day!  
  ▶ Develop marketing materials with hospital branding  
  ▶ Issue a news release  
  ▶ Distribute materials throughout the hospital/health system  
  ▶ Advertise in the community  
  Marketing contact: __________________________  
  Communications contact: __________________________ |   |
| □ Provides security |   |

Next steps:
Patient-Centered Strategies

Many people obtain diverted opioids from friends or family members. These patient materials include information on safe storage and disposal and can be provided to patients and their families. We have included a patient pamphlet that you can give patients when they receive an opioid prescription. The pamphlet is available on isqicdata.org. The Appendix contains additional resources, including information for households with young children.
References


Appendix

Additional Resources

Overview of the Opioid Crisis
https://www.cdc.gov/drugoverdose/opioids/prescribed.html
https://www.hhs.gov/sites/default/files/Factsheet-opioids-061516.pdf
https://www.cdc.gov/drugoverdose/epidemic/index.html

Preoperative Expectation Setting
The Society of Hospital Medicine’s (SHM’s) Multimodal Pain Strategies Guide for Postoperative Pain Management.
Northwestern pain management
American Academy of Pain Management Canada ISMP handout
https://my.clevelandclinic.org/health/articles/pain-control-after-surgery
https://anes-conf.med.umich.edu/opioidtaper/docs/setting_expectations.pdf
https://www.cdc.gov/drugoverdose/opioids/prescribed.html
https://www.journalacs.org/article/S1072-7515(17)32055-0/fulltext
https://jamanetwork.com/journals/jamasurgery/fullarticle/2664659

Use of Non-Opioid Alternatives
The Society of Hospital Medicine’s (SHM’s) Multimodal Pain Strategies Guide for Postoperative Pain Management

Electronic Prescribing
https://www.health.ny.gov/professionals/narcotic/electric_prescribing/docs/epcs_faq
Avoid Prescribing from Multiple Providers
County Health Rankings & Roadmaps Prescription drug monitoring programs overview
http://www.countyhealthrankings.org/policies/prescription-drug-monitoring-programs-
Safe Storage and Disposal of Unused Opioids
National Safety Council: Safety at home with opioid painkillers  CDC tipsheet (focused more on young children)
CDC brochure (expanded from tipsheet, focused more on young children)
http://c.ymcdn.com/sites/www.productstewardship.us/resource/resmgr/imported/PSI_Pharma-
https://apps.deadiversion.usdoj.gov/pubdispsearch/spring/main?execution=e1s1