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Opioid Prescribing and Monitoring

How to Combat Opioid Abuse and Misuse Responsibly

Medical Management of Acute Pain

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Opioids can be effective in the treatment of acute pain, especially when combined with other analgesics. However, they are not always necessary and at times pose more risks than benefits to the patient.

By definition, acute pain is self-limited discomfort that typically lasts from a few moments to several weeks but less than 3 to 6 months.¹ It can relate to soft tissue or skeletal damage, and may be categorized as spontaneous or post-traumatic, with the trauma planned (surgical) or unplanned (accidental). As the injured tissues heal, acute pain gradually resolves. In the meantime, the pain can vary in severity from mild to severe. Some therapies, such as opioids, are reserved for more severe pain. However, even if pain is severe, it is important to recognize that not all acute pain requires opioid therapy. In fact, over the past 10 to 15 years, there has been overutilization and prolonged use of opioids for acute pain. This increased opioid prescribing and availability has led to increased abuse and misuse. Studies suggest that patients discharged on opioids are more likely to remain on opioids 1 year later compared with patients who were not discharged on opioids.^{2,3}

Types of Acute Pain

Acute pain can vary significantly and may be categorized into two main types: spontaneous insult or trauma and elective or planned procedures.

Spontaneous Insult or Trauma

Mildly painful spontaneous conditions include headache, upper respiratory infection, or a sore back from doing yard work, and may be self-treated with rest-ice-compression-elevation (RICE) therapy and over-the-counter analgesics. Moderately painful conditions include a sprained ankle, strained ligament, deep laceration, or simple bone fracture. These may require interventions such as minor outpatient surgery or splinting, but are generally managed with nonsteroidal anti-inflammatory drugs (NSAIDs), acetaminophen, and RICE.⁴ Severely painful conditions include trauma such as a motor vehicle accident, traumatic amputation, or burn, and will likely involve surgery and a protracted hospital stay. A stronger combination of analgesics, including opioids, may be required. Of course, the pain level for each case must be individually determined.

Elective or Planned Procedures

Office procedures, including immunizations, phlebotomy, or catheter placement, tend to result in mild acute pain that is usually eased with application of topical lidocaine/prilocaine (EMLA), lidocaine, ice, or devices like a Buzzy, which combines the application of ice and vibration. Moderately painful procedures include same-day dental, arthroscopic, laparoscopic, or podiatric surgeries. This type of pain may be managed with simple analgesics, such as NSAIDs and acetaminophen. At most, a total of 6 to 8 doses of an opioid and acetaminophen combination might be needed if the patient's discomfort is not controlled with simple analgesics. Severely painful

procedures include surgeries requiring inpatient stays, such as orthopedic joint replacement, spine surgery, or colorectal surgery. These will require a combination of analgesics and stronger opioids, possibly starting preoperatively (Table 1).

Table 1. Treatments for Acute Pain

Severity	Examples	Treatment	Opioids Needed?
Spontaneous/trauma			
Mild	Sinus headache, soreness after yard work, superficial laceration	RICE, OTC analgesics	No
Moderate	Sprain, strain, simple bone fracture, deep laceration	Simple outpatient surgical procedure, NSAIDs, acetaminophen, RICE	No
Severe	Motor vehicle accident, burn, traumatic amputation	Surgery, hospitalization, possible intensive care, multimodal analgesics	Yes
Planned/elective			
Mild	Immunization, catheter placement, phlebotomy, superficial biopsy, simple dental extractions	Ice, Buzzy, lidocaine/EMLA	No
Moderate	Same-day surgery (arthroscopy, multiple dental extractions/wisdom teeth, laparoscopy, podiatric procedures)	NSAIDs, acetaminophen	Not likely, at most 6-8 tabs of opioid/acetaminophen combination
Severe	Arthroplasty, spinal, colorectal, open abdominal surgery requiring hospital stay	Multimodal analgesics	Yes

EMLA, lidocaine/prilocaine; **NSAIDs**, nonsteroidal anti-inflammatory drugs; **OTC**, over the counter

(<https://www.practicalpainmanagement.com/sites/default/files/imagecache/lightbox-large/images/2016/08/31/chapter2-table1.png>)

Treatment Options

Multimodal treatment is crucial for optimizing pain relief. Because different modalities may be additive or synergistic, this approach can also reduce the potential for side effects. The cornerstones of multimodal treatment include nerve blocks or epidurals, opioids or other analgesics, adjunctive medications, physical modalities (RICE), and rehabilitation. Psychosocial interventions, including distraction, meditation, and deep breathing, are also central components. Providers and patients are often too focused on the pharmacologic options, which are only a small part of the solution.

Simple Analgesics

Simple analgesics, including NSAIDs and acetaminophen, are most effective for treating acute pain because they target the natural inflammation that occurs with an injury. NSAIDs can be more effective than opioids and/or muscle relaxants for treating acute low back

pain.⁵ They are also very effective in reducing swelling and pain caused by a muscle strain or sprain. In a study of patients who underwent ambulatory orthopedic surgery, NSAIDs appeared more effective as patients required less rescue analgesics and had fewer adverse effects than patients taking either placebo or hydrocodone/acetaminophen.⁶ They can be given as “pre-emptive” analgesics for surgery as well as postoperatively in the elective setting.

Of course, simple analgesics are not without risk. Acetaminophen should be avoided in patients who drink alcohol or who have liver disease. Patients with coronary artery disease, stroke, renal disease, significant peptic ulcer or gastroesophageal reflux disease (GERD), or bleeding disorders should not take NSAIDs. There are a few exceptions. COX-2 selective agents, such as celecoxib (Celebrex), are used in the surgical arena because they do not affect platelet function or directly increase the risk of bleeding (all other contraindications apply).

Topical Analgesics

Menthol, camphor, methyl salicylate, or a combination of these counterirritants can be useful in managing localized musculoskeletal injuries, particularly when they can be massaged into the painful area. As long as the skin is intact, these can offer short-term relief of muscle pain. Many products are inexpensive and available over the counter. However, they must be applied several times per day, and some products have a strong, offensive odor.

Lidocaine or lidocaine/prilocaine may offer some localized, superficial anesthesia prior to IV catheter placement or phlebotomy. These typically require a prescription and must be applied at least 15 to 30 minutes prior to the procedure. Topical NSAIDs, including diclofenac patches or gel, also can provide good pain relief and are generally underutilized, particularly in the elderly.⁷ These, too, require a prescription.⁸

Opioids

Historically, in response to concerns about inadequately treated pain, both patients and providers began looking to opioids to relieve pain and suffering. Unfortunately, as a result of the increase in prescribing and availability, misuse and abuse resulted. Sometimes opioids are used long past the resolution of an acutely painful condition.

Treating Acute Pain With Opioids

A few key points to consider when determining the most appropriate treatment for a patient with acute pain:

Opioid prescribing does not contribute to patient satisfaction. Given the rise of pay-for-performance and associated financial incentives, patient satisfaction scores have become an important part of everyday practice. Some providers feel that if they don't provide opioids, then their patients will give them low scores. But this does not appear to be true. And even if it were true, it should not dictate good medical care. At least in the emergency department (ED), patient satisfaction was found to be inversely associated with provided analgesics, opioids, or a greater number of morphine equivalents.⁹ Satisfaction scores are most closely linked to the empathy and compassion shown by providers, as well as their communication with patients.

Opioids are anxiolytic. Patients (and family members) may be very anxious after an acute injury, and that anxiety can persist past the time of resolution. Patients may find that they are calmer after taking an opioid, yet it is not appropriate to treat anxiety with these drugs. So providers may need to initiate a discussion with the patient and family about safety concerns and effective alternative therapies for anxiety.

Offer guidance. When a patient is given any type of analgesic upon discharge from the ED or the hospital, he or she should be educated about how to use the medication and what to expect. The patient might, for example, be provided the following instructions: “Use 2 tablets of oxycodone about every 6 hours for the first week. For the next week, you'll only need 1 tablet about every 6 hours. You should be able to slowly stop the oxycodone over the following week, and switch to plain acetaminophen or an anti-inflammatory agent.”

Observe for risk factors. Risk factors for an overdose or serious opioid-induced respiratory depression (OSORD) may include mental health disorders and associated pharmacotherapy, such as benzodiazepines; impaired drug metabolism or excretion; pulmonary disorders; specific opioid characteristics; and recent hospital visits.¹⁰

Quantity limits are important. If the provider feels that the patient will need a short course of opioid therapy, the quantity should be capped at 10 to 12 tablets (< 3-day supply).¹¹ If disabling pain persists beyond the usual course of recovery, the patient should be evaluated for infection or other possible complications. Communication between an inpatient team and an outpatient primary care or pain provider is imperative.

Use the most effective therapy for the injury. Not all opioids are helpful for inflammatory or neuropathic pain. However, methadone, levorphanol, tramadol, and tapentadol (Nucyenta) do appear to have a benefit in the treatment of neuropathic pain.¹² The majority of minor surgical procedures do not require opioid therapy, including non-complicated molar extractions, dermatologic excisions, and certain orthopedic procedures. If opioids are used, they should generally be combined with another analgesic, such as acetaminophen or

an NSAID.

Prevent "doctor shopping." Before opioids are prescribed in the acute pain setting, providers should check the state and/or regional prescription drug monitoring program reports to screen for patients who visit multiple providers in order to obtain small supplies of opioids. Some programs offer results in real time, immediately after a prescription is filled.

Conclusion

Opioids are a key part of pharmacotherapy for acute pain. They are quite effective, particularly when used in combination with other analgesics, and are essential for both planned and unplanned severe acute pain situations. However, opioids must be used judiciously, for the shortest duration possible, and while giving the proper respect to risks of adverse effects, misuse, and abuse.

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