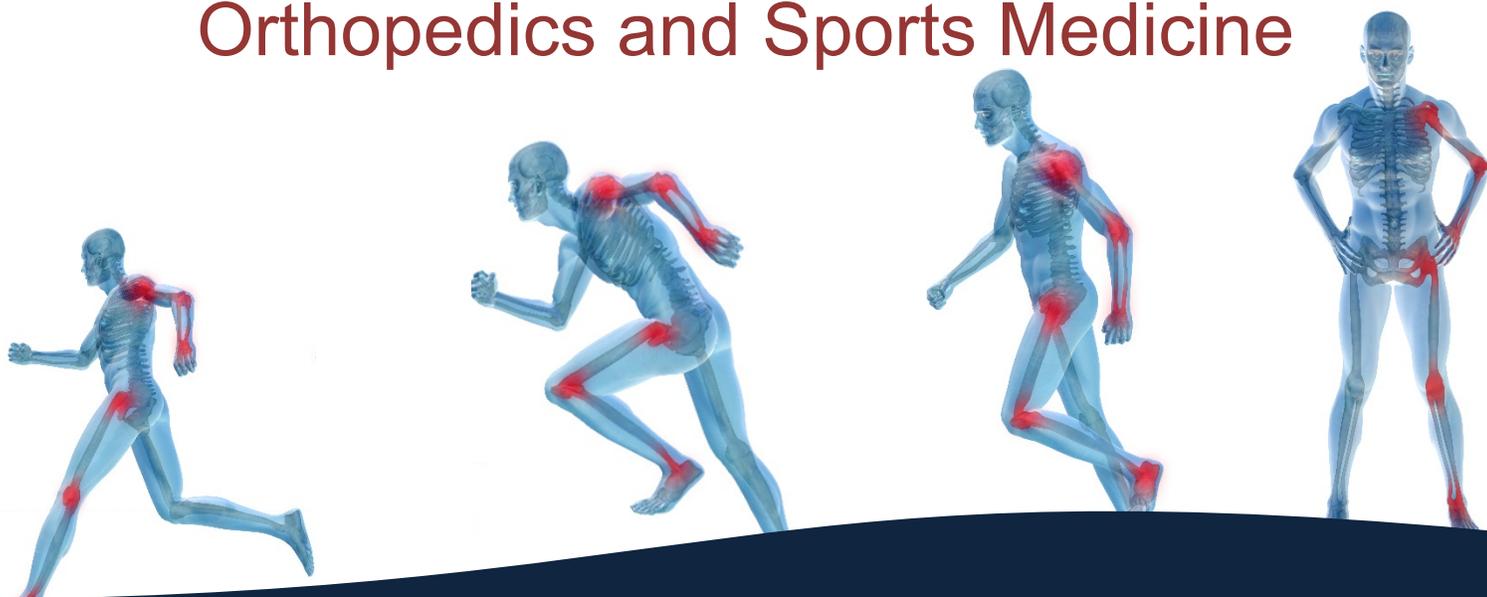




Prescribing Guidelines for Pennsylvania

The Safe Prescribing of Opioids in Orthopedics and Sports Medicine



Individuals may seek care with an Orthopedic and Sports Medicine specialist due to a sports injury or other acute or chronic condition. Patients seeking care with Orthopedics and/or Sports Medicine specialists can experience pain that leads to orthopedic consultation and surgery. Assessment and effective treatment of pain whenever possible is important to improving patient outcomes.

The included guidelines address the use of opioid pain medication in orthopedics and sports medicine. They are intended to help healthcare providers

improve patient outcomes and to supplement, but not replace, the individual provider's clinical judgment.

It is recommended that providers review associated Pennsylvania State Guidelines related to the use of opioids in chronic non-cancer pain, various medical subspecialties and patient populations, pharmacy guidelines, and dental guidelines, which may provide insight into treatment options for these populations.



Providers should remember that exercise (including rehabilitative exercise), Osteopathic Manipulative Treatment (OMT), physical therapy, acupuncture, or psychotherapy (e.g. cognitive behavioral therapy) will often ameliorate pain and improve function. In many situations, these approaches should be tried first and only then should pharmacological agents be considered.

Background

Prescription drug overdose deaths have been increasing at an exponential rate. The United States Centers for Disease Control and Prevention (CDC) reported that in 2014 over 47,000 overdose deaths occurred in the United States, with more than 60 percent (28,647) of these deaths involving opioids. In 2014, 1.5-times more people died from drug overdoses than died in automobile accidents. In Pennsylvania, the number of opioid related deaths is also staggering. In 2015, it was reported that at least 10 individuals died each day in Pennsylvania of a drug overdose.

While the United States makes up only 4.4% of the world's population, Americans utilize 80% of the world's supply of opioids. Prescribing decisions affect not only the patient, but their family and society-at-large. New or occasional abusers of pain medications obtain a significant portion of their prescription drugs for non-medical purposes through friends and family, rather than through legal means. As a result, even appropriately prescribed opioids for a specific patient can lead to significant harm to another, if that person takes the pain medications not prescribed to him or her.

Moreover, the amount of opioids prescribed by physicians following surgery appears to be trending upwards. Between 2004 and 2012, opioid prescriptions increased by 18%. Further, in 2012, 70% of opioid-naïve patients who had a low-risk, minor surgical procedure, filled an opioid prescription within seven days of the surgery.

More recent data indicates that opioid prescribing completed at the time of surgery may have an important impact on the risk for both chronic opioid use, and the risk for development of substance use disorder.

In order to address the opioid epidemic, many have called for more judicious prescribing on the part of physicians and other healthcare providers.

Orthopedic surgeons are the third highest prescribers of opioid prescriptions behind family practitioners and internists. Therefore, orthopedic surgeons have a unique opportunity to improve patient outcomes through best practices related to proper assessment and treatment of pain that includes mindful opioid prescribing.

1. General Opioid Guidelines:

- A. Patient assessment should include proper methods for pain assessment.
 - i. Providers should understand that while patient-reported pain intensity, most commonly obtained via the numerical rating scale (NRS), can provide important information, it must be incorporated into a more comprehensive patient assessment.
 - ii. Opioid prescribing decisions should **not** be based solely on the NRS pain intensity report.
 - iii. Opioid prescribing decisions should also be based on functional assessment of patients, weighing potential benefits opioid analgesics may have on function against potential harms.
- B. Patients benefit most from multi-modality analgesia and functional improvement.
 - i. Opioids should rarely be used as the only analgesic. Pain care can include non-opioid medications, regional anesthesia, and various modalities of therapeutic and supportive care.



- ii. Providers should remember that exercise, OMT (Osteopathic Manipulative Treatment) physical therapy, rehabilitative exercise, acupuncture, or psychotherapy (e.g. cognitive behavioral therapy) will often ameliorate pain and improve function. In many situations, these approaches should be tried first and only then should pharmacological agents be considered
- C. Patients utilizing opioids previously who present with a new painful condition should be advised that they may not experience effective pain control.
- i. The administration of higher doses of systemic opioids may not lead to improved pain control.
 - ii. Opioid-tolerant patients are at increased risk for opioid-induced serious adverse events when opioid doses are aggressively increased in an effort to obtain improved pain control.
- D. Discuss pain medicine strategy with the patient at the initial encounter. As it pertains to opioids, this should include the type of opioid, time period to weaning, and time to cessation of therapy.
- i. We recommend documentation of this discussion in the medical record.
- E. For inpatient care, including surgical admission, complete and document a history and physical examination, including thorough medication reconciliation, and document a diagnosis and treatment plan. Pain care starts with a diagnosis and a treatment plan that includes goals of care and clear expectations for treatment.
- i. Discontinuation of opioid(s), or referral for consideration of chronic pain treatment should be incorporated in the treatment plan.
- F. Act 124 of 2016 dictates that when initiating opioid pain medication treatment, practitioners **must** access and document review of data available through the Prescription Drug Monitoring Program ([PA PDMP AWARxE](#)) database
- i. The law also mandates query of the PDMP prior to **every** opioid and benzodiazepine prescription, whether a new prescription or continuing therapy. Every query of the database should be documented in the patient's medical record.
- G. There are new Pennsylvania laws as of 2016 which limit the prescription of opioids in specific populations, which may apply to orthopedic and sports medicine prescribers:
- i. No practitioner may prescribe a minor (<18 years old), more than a seven day supply of opioids, unless in the documented medical opinion of the practitioner longer therapy is needed, or the opioid is for cancer, palliative, hospice, or chronic pain care. If there is only an authorized adult in charge of the minor (no parent or guardian) no more than a 72-hr supply may be prescribed. (Act 126 of 2016)
 - ii. No practitioner may prescribe more than a seven day supply of opioids to a patient seeking care in an emergency department, urgent care, or receiving care at a hospital in observation status (greater than 23 consecutive hours of onsite services, not in the emergency department, while not admitted inpatient), unless in the documented medical opinion of the practitioner longer therapy is needed, or the opioid is for cancer, palliative, or hospice care. (Act 122 of 2016)



- iii. No practitioner in an emergency department, urgent care, or observation status may prescribe a refill (continuation of previous or chronic therapy) of an opioid drug product. (Act 122 of 2016)
- H. Orthopedic patients and patients with sports injury are at risk for opioid misuse and dependence. Opioid abuse risk factors include a personal history of addiction, history of addiction in the first degree relative, or history of concurrent psychiatric illness.
- i. Prior or current history of substance use disorder should be assessed and opioids should be used with caution in this situation. The prescribing provider should be knowledgeable about resources for treatment of opioid use disorder in their community and refer patients for collaborative management as necessary.
- I. In general, opioids should not be prescribed in combination with a benzodiazepine, as the use of both medications significantly increases the risk of respiratory arrest and death.
- i. When opioids must be used in combination with benzodiazepines, the lowest dose of opioid while still providing effective analgesia should be used, and consideration should be given to careful monitoring of adequacy of ventilation.
 - ii. Consideration should be given to the prescribing of naloxone in patients receiving high doses of opioids (50-100mg morphine equivalents) or in those patients receiving opioids in combination with benzodiazepines.
- J. Patients should be informed that all medications, especially opioids, should be stored in a secure place, out of the reach of children.
- K. When opioids are no longer necessary for the indication for which they were prescribed, they should be disposed of in a safe manner and should not be stored for future use. Pennsylvania maintains drug take back centers. Locations for drug take back centers can be found at: <https://apps.ddap.pa.gov/GetHelpNow/PillDrop.aspx>

2. Orthopedic Opioid Guidelines: Trauma

Trauma care can represent a particular challenge to patient-partnered approach to analgesia, depending upon the extent of the trauma. Patient stability remains the initial and top priority, and the approach to trauma care should remain consistent with the Advanced Trauma Life Support (ATLS) protocol.

In studies, up to 20% of adult orthopedic trauma patients seek prescription analgesia after discharge from multiple providers. This can speak to both lingering disability and significant pain of trauma, as well as the increased propensity toward opioid addiction with heightened dosing and duration of opioid analgesia. It is for these reasons that the orthopedic trauma provider should, after stabilization of the patient, consider the following:

- A. If opioids are administered with, or in temporal proximity to, a benzodiazepine or other sedative medication, extreme caution should be observed with regard to respiratory and neurologic complication, given the risk of morbidity and mortality.
- B. Depending on the type and extent of trauma, consideration must be given to the sedating effect of opioids with regard to preserving the validity of neurologic assessments. To this end, we refer you to the general guidelines recommending the lowest dose of opioid while still providing effective analgesia, adopting a



multi-modal analgesia plan, and continuing careful monitoring.

- C. Orthopedic providers managing patients who sustain trauma, injury, or fracture should observe the guidelines outlined. Clear expectations regarding injury severity, recovery, and pain management should be conveyed to the patient.

3. Orthopedic Opioid Guidelines: Pre-and Post-Operative Care Sports Medicine Care and Post-Surgical Care

Orthopedic care can be divided into the pre-operative, intra-operative, and post-operative time frames, however the vast majority of opioid medication prescribed by orthopedic surgeons is in the immediate post-operative period. The following are recommendations for appropriate opioid use in these settings:

- A. Patients with a history of chronic opioid use who successfully wean off their opioid dose prior to orthopedic surgery have an improvement in clinical outcomes that is comparable to patients who have never used pre-operative opioid analgesia. If possible, surgeons should discuss weaning opioid dosing in the pre-operative setting.

- B. Enhanced Recovery After Surgery (ERAS) Protocol: The use of a multi-modal approach allows patients to use fewer opioids and spend fewer days in the hospital. ERAS protocols have been shown to facilitate faster recovery and improve pain control while minimizing opioid use in the immediate post-operative period.

- i. An ERAS protocol often includes the use of regional anesthetic techniques intra-operatively (and continued into the post-operative period when possible), anti-inflammatory medications when not contraindicated, scheduled use of acetaminophen, neuro-modulating medications such as gabapentin or

pregabalin, and limited systemic opioids.

- C. Prior to performing any orthopedic procedure, surgeons should engage in conversations with their patients to set realistic expectations of pain control in the post-operative period.

- i. Patients should understand that they will indeed experience some amount of pain, and that pain cannot be completely eliminated following surgery. This is especially true in patients on chronic opioids.

- D. In the perioperative period, give consideration for regional anesthetic or indwelling nerve catheters. The preoperative use of a regional anesthetic may obviate the need for opioids during the case and significantly improve pain in the early postoperative period. The use of indwelling catheters in terms of spaces outside of the joint (e.g. a scalene or femoral catheter) may significantly reduce the need for perioperative narcotics.

- E. Most patients will require opioids for a short duration of time post-operatively.

- i. The dose and duration of opioid therapy should be carefully determined based on the type of surgery and the expected duration of need for aggressive pain care. Extended opioid use following trauma or surgery may contribute to the chronic use of opioids or substance use disorder.
- ii. Many practitioners continue the use of low-dose aspirin in consideration for DVT prophylaxis following that time period, which may additionally assist with the management of postoperative pain.
- iii. CDC pain guidelines state that opioids should be discontinued in most patients within seven (7) days. Opioid tolerance is often present following continued daily use beyond two (2) weeks. Practitioners



must take extreme care to avoid allowing acute opioid prescription to “evolve” to chronic opioid therapy.

F. Many orthopedic procedures are minimally invasive and patients may require little or no opioids following surgery. Prescribers should use the lowest dose and amount of opioid while still providing effective analgesia, to limit opioid excess within the community.

4. Orthopedic Opioid Guidelines: Sports-Medicine Surgical Care

Sports medicine practice can (depending on specialty) include both surgical and non-surgical care. For surgical guidelines, please refer to the above orthopedic guidelines; the below will focus on ambulatory and team-based sports medicine.

A. There is no need for sports medicine specialists to prescribe opioids for the treatment of chronic pain.

- i. Patients determined to have need for chronic opioids should be referred for treatment in a more continuity-based environment, such as their primary care provider or a pain management specialist.

B. Non-operative treatment of sports medicine injuries may require the use of opioids for acute pain (e.g. non-operative treatment of fractures, treatment of dislocations or acute injuries in contact sports).

- i. Regarding this setting, opioids should be provided for limited, short-term use, referencing the above general considerations.

C. Avoid the use of sustained release opioids if possible. Even the most painful sports medicine injuries and surgeries can be managed with immediate-release opioids to avoid abuse issues surrounding sustained-release formulations.

D. While it is known that non-steroidal anti-inflammatory medications may negatively affect soft tissue healing to bone as well as bony healing, it is reasonable to include NSAIDs in the short term (up to 7-10 days post-operatively).

Orthopedic surgeons should carefully weigh the benefits of NSAID’s in the immediate post-operative period with the risk to bone healing in each clinical scenario.

E. Some patients may benefit from judicious use of as-needed opioids to allow for participation in physical therapy or rehabilitative exercise.

- i. Several procedures, particularly of the shoulder, may necessitate a period of rest followed by the start of physical therapy or rehabilitative exercise, where an increase level of pain may require the use of opioids.
- ii. As-needed opioids to facilitate therapy should be provided for limited, short-term use, and a date for discontinuation of opioids should be documented and discussed with the patient.

F. Regarding return to play (RTP), consider the following tenets in prescribing behavior:

- i. If the injury is painful enough for an opioid medication to be considered, particularly in an adolescent or amateur athlete, return to sports should likely not be considered.
- ii. Opioid medications should not be used for the purpose of returning any athlete to the field of play.

G. Per NCAA recommendation, school-based providers and programs should develop a written policy on substances, including opioids, that includes wording on recruitment, drug testing, disclosure of medications, discipline, and counseling/treatment options.

- i. Student-athletes should also be counseled on the risk of combining opioids with alcohol, particularly given the increased prevalence of binge drinking in the student-athlete population.

H. Physicians who travel with teams to different states, or who sustain their practice in different states, should be aware of and comply with all applicable federal and state laws regarding the prescription of opioid analgesia.



- i. For example, if you are a Pennsylvania-boarded sports medicine provider, traveling with your team to New Jersey, we recommend you follow federal and New Jersey guidelines, and vice versa.
- I. Post-acute injuries and recovery can create a risk of development of adverse impacts and substance use disorder. Referrals to counseling, as needed, can support the feelings of anxiety and depression that surround the short or long term change in functional abilities associated with injury, can help prevent substance misuse and intervene with development of substance use disorder.
- Pennsylvania Orthopedic Society – Opioid Recommendations for Acute Pain. <http://www.paorthosociety.org/opioids-in-orthopaedic-practice>
- Matava, Matthew J. "Ethical Considerations for Analgesic Use in Sports Medicine." *Clinics in Sports Medicine* 35.2 (2016): 227-43. Web.
- Nguyen, Long-Co L., David C. Sing, and Kevin J. Bozic. "Preoperative Reduction of Opioid Use Before Total Joint Arthroplasty." *The Journal of Arthroplasty* 31.9 (2016): 282-87. Web.
- "2014-15 NCAA Sports Medicine Handbook." *2014-15 NCAA Sports Medicine Handbook*. Ed. John T. Parsons. National Collegiate Athletic Association, Aug. 2014. Web. 15 Dec. 2016.
- Zarling, Bradley J., Sanar S. Yokhana, Darren T. Herzog, and David C. Markel. "Preoperative and Postoperative Opiate Use by the Arthroplasty Patient." *The Journal of Arthroplasty* 31.10 (2016): 2081-084. Web.
- Safe Emergency Prescribing Act, Act of Nov. 2, 2016, P.L. 976, No. 122.
- The Achieving Better Care by Monitoring All Prescriptions Program ("ABC-Map"), Act of Nov. 2, 2016, P.L. 980, No. 124.
- Safe Opioid Prescription, Act of Nov. 2, 2016, P.L. 987, No.126

Resources

Authors:

- Michael Ashburn, MD, MPH, Department of Anesthesiology and Critical Care, University of Pennsylvania
- Maria Battista, J.D., Ed.D., Hearing Examiner, PA Department of State, Office of Hearing Examiners
- Jonathan P. Bigley, Esquire, Bigley & Blikle, LLC
- Sarah Newman Boateng, Special Assistant to the Physician General, PA Department of Health
- Robert Cabry, Jr., MD, FAAFP Premier Orthopedic and Sports Medicine Associates
- Maureen Cleaver - Director, Division of Prevention and Intervention – PA Department of Drug and Alcohol Programs
- Jeremy D. Close, MD - Physician - Thomas Jefferson University
- Jessica Deary, Patient Advocate
- Justin S. Hong MD, Assistant Clinical Professor, Department of Physical Medicine and Rehabilitation, Penn State College of Medicine
- Michael Madden, Chief Medical Officer, Gateway Health Plan
- Rachel Levine, MD, Physician General, Commonwealth of Pennsylvania
- Kenneth Martz, PsyD MBA, Special Assistant to the Secretary, PA Department of Drug and Alcohol Programs
- Meghan McNelly, Pharm.D., MHA, Director of Pharmacy, OSS Health
- Zachary F. Meisel, MD, MPH. Assistant Professor of Emergency Medicine, University of Pennsylvania
- Samir Mehta, MD, Orthopaedic Trauma, University of Pennsylvania
- Tanya Miller, GAC Chair, Pennsylvania Athletic Trainers' Society
- Douglas Phelan, Physician, NH Dartmouth Family Medicine Residency / PA DOH Intern
- Joshua Port, Physician, University Orthopedics Center
- Spence Reid, MD Physician, Penn State Hershey Bone and Joint Institute
- George Roberts, President, Pennsylvania Athletic Trainers' Society
- Angela Rowe, Physician, University Orthopedics Center
- Robin Rothermel, Senior Director, Physician Support, Pennsylvania Medical Society
- Heather Shultz, Acupuncturist, Virtua Center for Integrative Medicine
- Patrick N. Smith, MD, Three Rivers Orthopedics, UPMC – St. Margaret Hospital, President – Pennsylvania Orthopedic Society
- Suzette Song, Physician, OSS Health
- Deborah Ann Shoemaker, Executive Director, Pennsylvania Psychiatric Society