AAOS American Academy of Orthopaedic Surgeons
American Association of Orthopaedic Surgeons

Information Statement

Opioid Use, Misuse, and Abuse in Orthopaedic Practice

This Information Statement was developed as an educational tool based on the opinion of the authors. It is not a product of a systematic review. Readers are encouraged to consider the information presented and reach their own conclusions.

The United States is in the midst of an epidemic of opioid drug (narcotic drug) use, misuse, and abuse.[1] To address this critical public health issue, all physicians and orthopaedic surgeons must be accountable for their direct or indirect contributions to the epidemic and should responsibly develop solutions to effectively treat this epidemic.

It is estimated that the United States consumes 80 percent of the global opioid supply.[2] According to the U.S. Food and Drug Administration (FDA), more than 50 million Americans were prescribed some type of narcotic pain medication in 2011, which represents a nearly 100 percent increase in narcotic pain medication prescriptions since 2008.[2] This increase in opioid prescription medication corresponds to an increase in opioid diversion to nonmedical users as well as a resurgence in heroin use.[3-5] Opioid overdose is now the leading cause of accidental death in young adults.[6] Opioids are associated with a higher risk of postoperative death.[7] Opioids also increase the risk of fall and fracture in the elderly.[8, 9]

The AAOS believes that a comprehensive opioid program is necessary to decrease opioid use, misuse, and abuse in the United States. New, effective education programs for physicians, caregivers, and patients; improvements in physician monitoring of opioid prescription use; increased research funding for effective alternative pain management and coping strategies; and support for more effective opioid abuse treatment programs are needed.

The American Academy of Orthopaedic Surgeons supports the following strategies for safer and more effective pain management and treatment:

Standardized Opioid Prescription Protocols/Policies: Orthopaedic surgeons and their team members can more effectively depersonalize discussions about opioids by using standardized opioid protocols in all settings (inpatient, outpatient, office) to control opioid use. Orthopaedic practices should establish protocols/policies to better control and limit opioid prescription dosages as well as appropriate/inappropriate opioid uses for acute musculoskeletal injuries, postsurgical pain, and chronic pain. Surgeons and team members should explain to patients that opioid protocols/policies benefit patients and extended families and cannot be violated. Such opioid protocols/policies should include:

- **Practice-based Opioid Use Consensus**: Each practice should set ranges for acceptable

amounts and durations of opioids for various musculoskeletal conditions treated, both surgically and nonsurgically.

- **Strict Limit on Opioid Prescription Size:** A prescription should only include the amount of pain medication that is expected to be used/appropriate, based on the protocol established. For patients who live longer distances from their surgeons, two prescriptions for smaller amounts of opioids with specific refill dates should be considered rather than a single large prescription. Most patients do not fill the second prescription, so this strategy limits potential opioid misuse.
- **Limit Extended-Release Opioids:** Orthopaedic surgeons most often treat acute pain following injury or surgery. Such acute pain typically improves over hours to days, rather than days to weeks. With one exception, extended-release opioids are not FDA-approved for the treatment of acute pain.
- **Extended release opioid medications have the following characteristics:**
  - They are intended for severe, long-lasting pain from cancer.[10] The effectiveness, risks, and role of long-term opioids for nonmalignant pain are unclear. Orthopaedic surgeons should consider using alternative non-opioid treatments or referring patients to multidisciplinary pain centers for treatment of chronic nonmalignant pain.
  - They do not allow for the titration and decrease of opioids, which makes it more difficult to limit opioid intake.
  - They are a popular class of opioid medications among opioid misusers and abusers.
  - They should be restricted to approved research protocols until the risks and benefits for the treatment of acute orthopaedic pain are better understood.

- **Restriction of Opioid Use for Preoperative and Nonsurgical Patients:** Pain from acute trauma or chronic degenerative diseases can usually be managed without opioids prior to surgery. Surgical patients using opioids preoperatively have higher complications rates, require more narcotics postoperatively, and have lower satisfaction rates with poorer outcomes following surgery.[11] The effectiveness of opioid use for the treatment of chronic pain other than cancer is debatable. Policies/protocols that limit use of opioids in patients with non-acute conditions can help limit patients' soliciting opioid prescriptions from more than one physician. Policies/protocols that restrict opioids for preoperative, nonsurgical, and chronic pain patients should be considered.

Predictive Opioid Use/Misuse/Abuse Tools: Patients at risk for greater opioid use should be identified (eg, using the opioid risk tool http://www.mdcalc.com/opioid-risk-tool-ort-for-narcotic-abuse/). Patients with symptomatic depression and ineffective coping strategies should be identified and treated prior to elective surgery. Physicians, the public, and policy makers should value interventions to lessen stress, improve coping strategies, and enhance support for patients recovering from injury or surgery.

Communication Strategies: Surgeons should script and practice empathetic and effective communication strategies, appropriate for all levels of health literacy. Patients are more

comfortable and use fewer opioids when they know their doctor cares about them as individuals.

Professional, Interpersonal, and Organizational Collaborations: Partnerships need to be established among hospitals, employers, patient groups, state medical and pharmacy boards, law enforcement, pharmacy benefit managers, insurers, and others. Patients need to understand that opioid medications should be used only as directed and to practice safe storage and disposal. The patient's family and friends should also be educated to help with physical activities that are difficult and to provide emotional support for recovery. Prior to elective surgeries, physicians should encourage (or should work with) patients to establish a social network—including visiting nurses and home health aides, as well as neighborhood volunteers—to provide emotional and physical support during recovery.

Improved Care Coordination and Opioid Use Tracking: It should be possible for a surgeon and pharmacist to see all prescriptions filled in all states by a single patient. Opioid use is best coordinated through a single prescribing physician/surgeon/practice, especially when dealing patients have ongoing/chronic pain issues. Doctors in emergency departments or other consulting physicians can then contact that prescribing physician/surgeon/practice to determine if an exception is warranted. Referral for alternative pain management strategies should be considered for atraumatic musculoskeletal pain. Evidence is available that ongoing pain after injury or surgery is most often associated with symptoms of depression, posttraumatic stress disorder, and ineffective coping strategies—all of which are responsive to cognitive behavioral therapy.

Continuing Medical Education (CME) for Physicians: Physician and caregiver awareness of the risks and appropriate uses of opioid medications is important. Requiring periodic CME on opioid safety and optimal pain management strategies will help physicians reduce opioid use and misuse.

Quality Improvement: Physicians and caregivers should integrate performance improvement in pain management, stricter opioid prescribing, and screening and treatment for substance use disorders into new delivery model quality metrics. Questions about satisfaction with pain relief and pain medication may not be optimal quality measures.

Maintenance of Proper Opioid Access: Even as healthcare providers and regulators take steps to address the problem of opioid abuse, they must recognize that, in certain settings and for certain conditions, patients with terminal conditions and other appropriate indications should have access to opioid analgesics to manage their pain.

Opioid Culture Change: Making opioids the focus of pain management has created many unintended consequences that often put both patients and their families at increased risk of addiction and death. A new approach to pain management is needed to effectively change the cultural expectations of patients with pain. Patients with similar injuries and surgeries experience varying amounts of pain. The differences in pain for a given injury or surgery are largely explained by individual patient circumstances, characteristics, and mindset. Stress,

distress, and ineffective coping strategies create greater pain. Peace of mind is the strongest pain reliever. Studies have found that opioids are associated with more pain and lower satisfaction with pain relief. Opioids are potentially dangerous medications for all patients; they are highly addictive and can cause death.

In the United States, the current cultural expectation of opioid use as the primary treatment for acute and chronic pain has created an opioid epidemic. Only a culture change led by physicians dedicated to limiting inappropriate opioid use will solve this epidemic.[12] Physicians, patients, and caregivers in the United States need to learn how to treat pain with less dependency on opioid medications.[11]

References:

1. Executive Office of the President of the United States. Epidemic: Responding to America's Prescription Drug Abuse Crisis.
2. Manchikanti L, Singh A: Therapeutic opioids: A ten-year perspective on the complexities and complications of the escalating use, abuse, and nonmedical use of opioids. *Pain Physician* 2008;11(2 suppl):S63-S88. MedlineWeb of Science http://www.ncbi.nlm.nih.gov/pubmed/18443641
3. Sohn DH. Pain Meds Present Problems. *AAOS Now,* July 2013. http://www.aaos.org/news/aaosnow/jul13/managing8.asp
4. Okie S. A flood of opioids, a rising tide of deaths. *N Engl J Med*. 2010 Nov 18;363(21):1981-5. doi: 10.1056/NEJMp1011512. http://www.nejm.org/doi/full/10.1056/NEJMp1011512 Erratum in: *N Engl J Med*. 2011 Jan 20;364(3):290. PubMed PMID: 21083382. http://www.nejm.org/doi/full/10.1056/NEJMx100106
5. Carey B. Prescription Painkillers Seen as a Gateway to Heroin. *The New York Times,* Feb. 11, 2014. l
6. Manchikanti L, Helm S II., Fellows B, et al: Opioid epidemic in the United States. *Pain Physician* 2012;15(3 suppl):ES9-ES38. Medline http://www.ncbi.nlm.nih.gov/pubmed/22786464
7. Fouladpour N, Jesudoss R, Bolden N, Shaman Z, Auckley D. Perioperative Complications in Obstructive Sleep Apnea Patients Undergoing Surgery: A Review of the Legal Literature. *Anesth Analg*. 2015 Jun 23. [Epub ahead of print] PubMed PMID: 26111263. http://www.ncbi.nlm.nih.gov/pubmed/26111263
8. Aparasu RR, Chatterjee S. Use of narcotic analgesics associated with increased falls and fractures in elderly patients with osteoarthritis. *Evid Based Med*. 2014 Feb;19(1):37-8. doi: 10.1136/eb 2013-101401. Epub 2013 Aug 13. PubMed PMID:23942986. http://www.ncbi.nlm.nih.gov/pubmed/23942986
9. Rolita L, Spegman A, Tang X, Cronstein BN. Greater number of narcotic analgesic prescriptions for osteoarthritis is associated with falls and fractures in elderly adults. *J Am Geriatr Soc*. 2013 Mar;61(3):335-40. doi:10.1111/jgs.12148. Epub 2013 Mar 1. PubMed

PMID: 23452054; PubMed Central PMCID: PMC3719174. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3719174/

10. FDA announces safety labeling changes and postmarket study requirements for extended-release and long-acting opioid analgesics
11. Lee D, Armaghani S, Archer KR, et al. Preoperative Opioid Use as a Predictor of Adverse Postoperative Self-Reported Outcomes in Patients Undergoing Spine Surgery. *J Bone Joint Surg* Am. 2014 Jun 4;96(11):e89 http://www.ncbi.nlm.nih.gov/pubmed/24897746
12. Ring DC. Pain Relief: What Can We Do? *AAOS Now,* January 2015. http://www.aaos.org/news/aaosnow/jan15/research2.asp

�October 2015 American Academy of Orthopaedic Surgeons.

This material may not be modified without the express written permission of the American Academy of Orthopaedic Surgeons.

Information Statement 1045

For additional information, contact the Public Relations Department at 847-384-4036.

9400 West Higgins Road Rosemont, Illinois 60018 Phone 847.823.7186 Fax 847.823.8125

© 1995-2015 by the American Academy of Orthopaedic Surgeons. "All Rights Reserved." This website and its contents may not be reproduced in whole or in part without written permission. "American Academy of Orthopaedic Surgeons" and its associated seal and "American Association of Orthopaedic Surgeons" and its logo are all registered U.S. trademarks and may not be used without written permission.