

The NOPAIN Act: Implications for Opioid Use Reduction in Orthopaedic Surgery

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INTRODUCTION:

The opioid epidemic remains a critical public health issue, with orthopaedic surgeons being among the highest prescribers of opioids for postoperative pain management. To elucidate the provisions of the Non-Opioid Prevent Addiction in the Nation (NOPAIN) Act and its implications for reducing opioid use in orthopaedic surgery.

METHODS:

A comprehensive review of the NOPAIN Act's legislative framework, historical opioid use in orthopaedic practices, current non-opioid pain management strategies, and insights from relevant reports were conducted.

RESULTS:

The NOPAIN Act, effective January 1, 2025, mandates Medicare reimbursement for FDA-approved non-opioid pain treatments at 106% of the Average Sales Price (ASP +6%) in hospital outpatient departments (HOPDs) and ambulatory surgery centers (ASCs). This legislation incentivizes the adoption of non-opioid alternatives, promoting multimodal analgesia and regional anesthesia techniques. The Act is expected to enhance patient outcomes, reduce opioid-related adverse events, and support financial sustainability for healthcare institutions.

DISCUSSION AND CONCLUSION:

Implementation of the NOPAIN Act empowers orthopaedic surgeons to adopt evidence-based, non-opioid pain management protocols, enhancing patient outcomes and contributing to national efforts against the opioid crisis. The Act's financial incentives and structured reimbursement framework facilitate the transition to safer pain management practices.

Table 1: Eligible Non-Opioid Treatments Under the NOPAIN Act

Treatment Name	Type	Description	Examples
Liposomal Bupivacaine (Exparel)	Drug	A long-acting local anesthetic used for prolonged pain relief (post-surgery)	EXPAREL
Continuous Peripheral Nerve Block	Medical Device	Catheters that deliver a continuous infusion of anesthetic to specific nerves	ON-Q Pump
Epidural Analgesia	Regional Analgesia	Injection of anesthetic near the spinal cord to block pain in a specific region	N/A
Nerve Blocks	Regional Analgesia	Targeted injections that block pain signals in specific nerves or nerve groups	Brachial Plexus Block
Transcutaneous Electrical Nerve Stimulation (TENS)	Medical Device	Devices that use electrical currents to stimulate nerves for pain relief	TENS Units
Intravenous Acetaminophen (IV APAP)	Drug	IV form of acetaminophen used for managing pain without opioid use	OFRIMEV
Gabapentinoids	Drug	Medications used to treat nerve pain and reduce opioid requirements	Gabapentin, Pregabalin
Ketamine Infusions	Drugs	Low-dose ketamine is used for pain management and reducing opioid needs	Ketamine HCl Infusions
Cryotherapy	Complementary Therapy	Use of cold therapy to reduce pain and inflammation post-surgery	Ice Packs, Cold Compresses
Physical Therapy Modalities	Behavioral Approaches	Techniques like massage, stretching, and exercise to manage pain	Manual Therapy, Therapeutic Exercise

Table 2: Non-Opioid Treatments and Their Applications in Orthopedics

Non-Opioid Treatment	Mechanism of Action	Applications in Orthopedics	Reimbursement Under NOPAIN Act
EXPAREL (Bupivacaine Liposome Injectable Suspension)	Long-acting local anesthetic that provides analgesia via slow-release	Local infiltration for total joint arthroplasty (E.g., hip, knee) and regional nerve blocks (E.g., interscalene brachial plexus for shoulder surgery)	ASP +6% reimbursement for drugs and biologics
ON-Q Pump	Continuous delivery of local anesthetics to the surgical site	Continuous local or regional anesthesia for spinal surgeries, large incisions, or open fractures	Medical device reimbursement via pass-through status
ZYNRELIEF (Bupivacaine and Meloxicam Extended-Release Solution)	Extended-release solution providing analgesia for up to 72 hours	Soft tissue and orthopedic procedures	ASP +6% reimbursement for drugs and biologics
Ketorolac Tromethamine Injection	NSAID for short-term management of moderate to severe pain	Postoperative pain control in fracture repairs, spine surgeries, and joint replacements	Reimbursed as a separately paid drug under part B

Table 3: Orthopedic Procedures and Options For Non-Opioid Treatment For Postoperative Pain

Orthopedic Procedures	Options For Non-Opioid Treatment For Postoperative Pain	Authors and Year
Spine Surgery	1. NSAIDs 2. Acetaminophen 3. Gabapentin 4. Pregabalin 5. Ketamine infusion of 0.1-1 mg/kg/h	Prihakar et al. (2022)
Total Joint Arthroplasty (Shoulder/Hip)	1. Paracetamol 2. Ketoprofen 3. Ropivacaine 4. Levobupivacaine 5. Mepivacaine	De Luca ML et al. (2018)
Hand Surgery	1. NSAIDs 2. Gabapentin 3. Ketamine 4. Clonidine or Dexmedetomidine	Jin Z et al. (2021)
Foot/Ankle	1. NSAIDs 2. Acetaminophen 3. Gabapentin 4. Nerve blocks of popliteal, saphenous, sural nerves using non opioid medications	Xu, A. L. & Humbyrd, C. J. (2023)
Total Knee Arthroplasty	1. Peripheral Nerve Blockade 2. Paracetamol 3. NSAIDs 4. Ketamine 5. α2-adrenergic agonists 6. Gabapentinoids 7. Acetaminophen	Lavand'homme PM et al. (2022) Li J.W., Ma Y.S., Xiao L.K. (2019)