Driving Performance in a Value-Based Landscape: Aligning Clinical Excellence with Economic Value in Post-Operative Pain Management

Healthcare Executive Leadership

PP-EX-US-10093

Navigating Healthcare's Future: Delivering Value, Prioritizing Quality, While Balancing Financial Sustainability

Value-based care prioritizes delivering the best possible outcomes

Ensure alignment with clinical objectives and financial sustainability

Driving improved outcomes at optimal cost

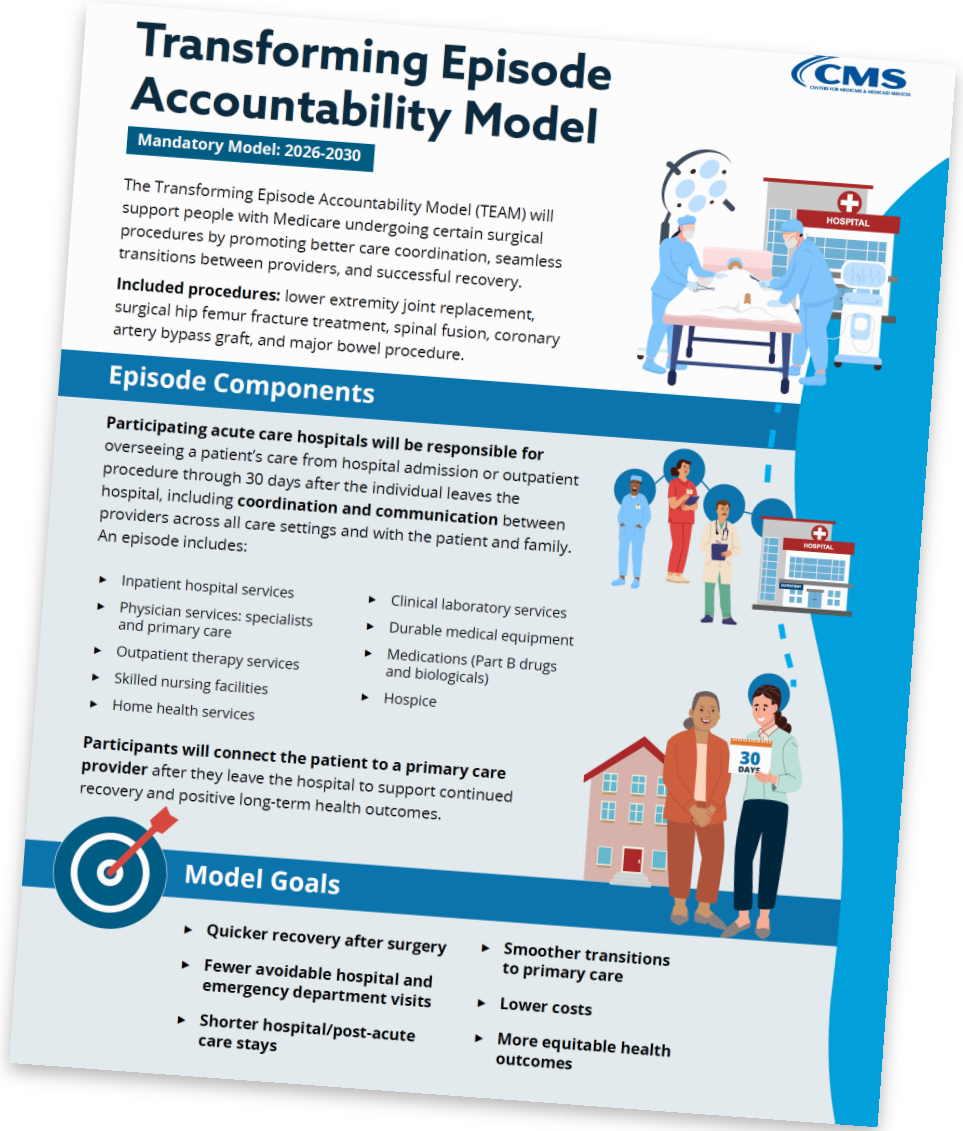
1. Butts, D., Gursahaney, V. (2014) Hospital Quality and Efficiency Program is Key to Successful Clinical Integration. Becker's Hospital Review. https://www.beckershospitalreview.com/hospital-physician-relationships/how-a-hospital-quality-and-efficiency-program-is-key-to-successful-clinical-integration.html 2. American Society of Anesthesiologists. (2014). ASA PSH: An Overview. https://www.asahq.org/psh/resources/an-overview

Transforming Episode Accountability Model (TEAM) & CMS

- ***Coming January 2026***

Accountable for ensuring Medicare recipients receive coordinated, high-quality care during and after certain surgical procedures.

Improvement Aim: Quality in high-volume surgical procedures, reduce rehospitalization and recovery time while lowering for the total cost of care.



What is the TEAM Model?

Directly Links

Hospital reimbursement to both clinical quality and financial performance

Participation Tracks

Evaluated against a regional benchmark to determine whether they receive a positive or negative reconciliation

Scale and Focus

741 acute care hospitals
$6 billion hospital in revenue
$481 million in Medicare savings

Hospital Responsibility

Cost of the procedure, as well as the total cost of care post 30 days post discharge

Hospitals Performance

A Composite Quality Score to adjust reconciliation amounts linking quality performance to payment
A financial bonus or a penalty

Episodes of Care

Participants are responsible for all episode categories unless specific exclusions apply, as defined by MS-DRG and/or HCPCS codes

Elevating Performance Across High-Volume, High-Risk Episodes

All Cause Readmissions

Hybrid Hospitals

These readmissions often signal preventable gaps in care coordination, patient education, discharge planning, or post-acute support. High readmission rates are associated with worse patient outcomes, avoidable costs, and reimbursement penalties.

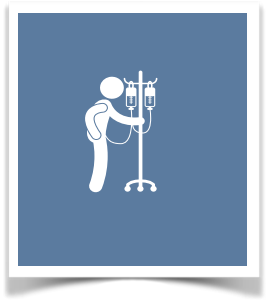
PSI-90

Patient Safety & Adverse Event Composite

It captures a weighted group of serious, potentially preventable adverse events that occur during hospitalization.

LEJR PROMs

Patient Reported Outcomes Measures



Focuses on measuring functional outcomes, pain improvement, and patient satisfaction following elective primary total hip (THA) and total knee arthroplasty (TKA).

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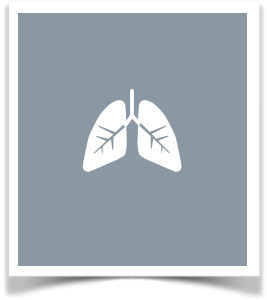
Hospital Harm

Falls with Injury

Focuses on serious lapses in inpatient safety and are often preventable.

Hospital Harm

Postop Respiratory Failure



Preventable complications following surgery that require unplanned intubation, mechanical ventilation, or ICU-level care.

30-Day Mortality

Failure to Rescue

Reflecting deaths from any cause within 30 days of a hospital admission, procedure, or surgery.

1.Centers for Medicare & Medicaid Services. *TEAM Care Quality Score Methodology*. 2024. https://innovation.cms.gov/media/document/team-cqs-methodology

Transforming Episode Accountability Model (TEAM) & CMS

TRACK 1	TRACK 2	TRACK 3
No downside risk and lower levels of reward for one year for all TEAM participants and up to three years for safety net hospitals.	**Lower levels of risk and reward** for certain TEAM participants, such as safety net hospitals or rural hospitals, for years two through five.	**Higher levels of risk and reward** for years one through five.
Episodes of focus will be Lower Extremity Joint Replacement, Surgical Hip Femur Fracture Treatment, Spinal Fusion, Coronary Artery Bypass Graft, and Major Bowel Procedure.		

Enhanced Recovery After Surgery (ERAS®): Cost-Effective Perioperative Pathways to Reduce Spend, Improve Outcomes and Maximize Value

ERAS is designed to:

- Reduce variability[3]
- Increase value by reducing cost and improving quality of care[2,3]
- Reduce complications and LOS[3]
- Facilitate surgical throughput leading to (early) postoperative discharge
- Maintain preoperative bodily compositions and organ function[2]

ERAS=enhanced recovery after surgery; LOS=length of stay.

1. Varadhan KK, et al. *Clin Nutr.* 2010;29(4):434-440. 2. Miller TE, et al. *Anesth News.* 2014:1-8. 3. Miller TE, et al. *Anesth Analg.* 2014;118(5):1052-1061.

Professional Societies Endorse ERAS®: Clinical Best Practices That Drive Financial Value in Surgical Care

References :ERAS® Society, Fawcett, W. J., Mythen, M. G., Ljungqvist, O., et al. (2019). *Enhanced Recovery After Surgery (ERAS) Society recommendations for spine surgery*. BJA: British Journal of Anaesthesia, 123(4), 450–460. https://doi.org/10.1016/j.bja.2019.05.021N 2. orth American Spine Society (NASS). (n.d.). *Multimodal pain management and opioid stewardship resources*. Retrieved from https://www.spine.orgA 3. merican Association of Neurological Surgeons(AANS) & Congress of Neurological Surgeons (CNS). (n.d.). *Joint clinical guidelines on perioperative spine care*. Retrieved from https://www.aans.org and https://www.cns.org 4.Society for Neuroscience in Anesthesiology and Critical Care (SNACC). (n.d.). 5. *Perioperative neuroanesthesia best practices for spine surgery*. Retrieved from https://www.snacc.org. 6. American College of Surgeons (ACS). (n.d.). *ng for Surgery & NSQIP initiatives supporting ERAS pathways*. https://www.facs.org. 7. American Society of Anesthesiologists (ASA). (n.d.). *Perioperative surgical home and ERAS alignment*. https://www.asahq.org. 8. American Society of Colorectal Surgeons (ASCRS). (n.d.). *Clinical practice guidelines for enhanced recovery in colorectal surgery*. https://fascrs.org. 9. Society of Thoracic Surgeons (STS). (n.d.). *AS clinical practice guidelines for thoracic surgery*. https://www.sts.org. 10. American Academy of Orthopaedic Surgeons (AAOS). (n.d.). *Perioperative optimization and opioid reduction strategies*. https://www.aaos.org. 11. American Urological Association (AUA). (n.d.). *Best practice statements incorporating ERAS principles*. https://www.auanet.org. 12. Amercan College of Obstetriciansand Gynecologists (ACOG). (n.d.). *ERAS recommendations for gynecologic surgery*. https://www.acog.org. 13. Society of Gynecologic Oncology (SGO). (n.d.). *ERAS in gynecologic oncology surgery guidelines*. https://www.sgo.org. 14. Societyfor Ambulatory Anesthesia (SAMBA). (n.d.). *Guidelines for outpatient surgery and multimodal analgesia*. https://www.sambahq.org

Aligning ERAS® Pathways with the Quintuple Aim for Sustainable Health Outcomes

01: Direct revenue through evidence-based care

02: Risk-based payments via standardized processes

03: Reduces clinical variability for reliable, high-quality care

04: Indirect savings via efficiency & performance improvement

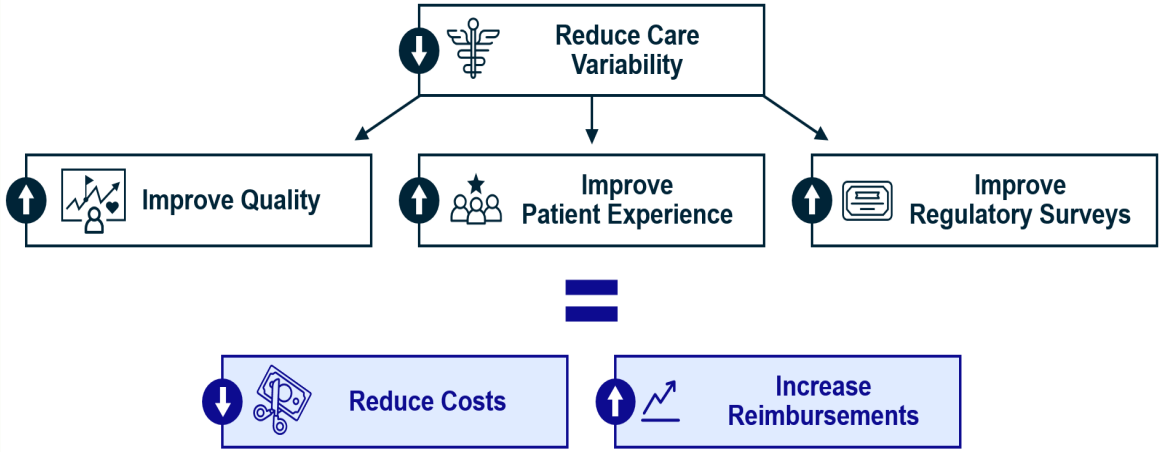
05: Mitigates penalties & optimizes throughput for value

1. Nivet, M. A., & Berlin, A. (2022). *The Quintuple Aim for health care improvement: A new imperative to advance health equity.* JAMA, 327(6), 521–522. https://doi.org/10.1001/jama.2021.25181. 2. Gonzalo, J. D., Thompson, B. M., Haidet, P., & Wolpaw, D. R. (2022). *Academic health centers and the Quintuple Aim of health care.* Academic Medicine, 97(12), 1775–1780. 3. American Society of Anesthesiologists. (2014). ASA PSH: An Overview. https://www.asahq.org/psh/resources/an-overview. 4. Butts, D., Gursahaney, V. (2014) Hospital Quality and Efficiency Program is Key to Successful Clinical Integration. Becker's Hospital Review. https://www.beckershospitalreview.com/hospital-physician-relationships/how-a-hospital-quality-and-efficiency-program-is-key-to-successful-clinical-integration.html

Shared Savings – Recovery That Pays Off

Driving Economic Value Across the Surgical Episode with ERAS and Opioid Sparing Strategies

Savings Category	Shared Savings (Per Patient)
Reduced LOS (1–3 days)	$2,000 – $6,000
Avoided Readmissions	$2,000 - $4,000
Avoided ORAEs (e.g., ileus, P-ONV)	$1,500 - $3,500
Avoided PSI-90 Events	$2,000 – $55,000
Reduced Penalties (CMS)	$500 – $11,000
Lower Opioid Rx Costs	$200 – $5,500
Total Per-Patient Savings	**$8,200 – $20,000**
Estimated Annual Savings (1,000 cases)	**$10 million**



*Estimated savings are illustrative and assumed savings opportunities if all cost categories applied uniformly across patients. Actual savings depend on baseline rates of complications and resource use.

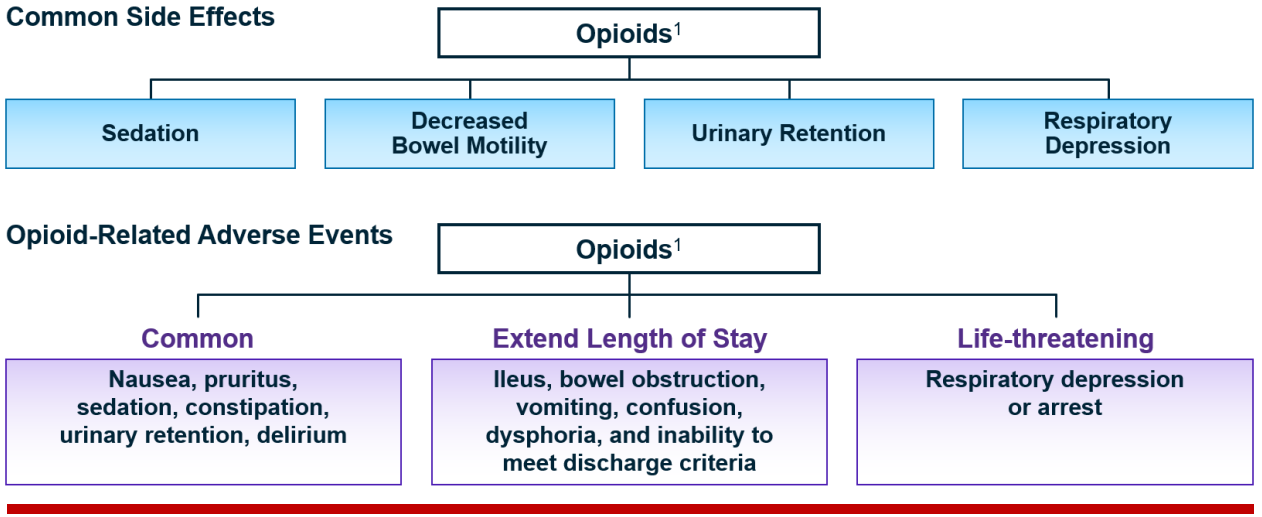
1.Premier Inc. *Optimizing Surgical Outcomes Through Enhanced Recovery: Evidence from Premier Healthcare Database.* Premier, Inc. 2021. https://www.premierinc.com. 2. Premier Inc. *Accelerating Value: Real-World Insights on Surgical Episode Optimization and Cost Containment.* 2020. https://www.premierinc.com. 3. Vizient Inc. *Enhanced Recovery After Surgery: Lowering Costs While Improving Outcomes.* Vizient, Inc. 2022. https://www.vizientinc.com. 4. Vizient Inc. *Clinical Data Base Analytics: Using ERAS to Reduce Variation and Drive Value in Surgical Care.* Vizient, Inc. 2021. https://www.vizientinc.com

High-Cost Complications Due to Surgical Variability

Complication	Extended LOS	Costs
Postoperative Ileus (POI)	3–7+ days	$8,000–$15,000
Uncontrolled Pain	1–3 days	$5,000–$10,000
Nausea & Vomiting (PONV)	0.5–2 days	$3,000–$6,000
Respiratory Depression	2–5+ days	$10,000–$20,000+
Delirium (Older Adults)	3–6 days	$7,000–$12,000
Surgical Site Infection (SSI)	7–10 days	$11,000–$30,000+
Wound Dehiscence	5–12 days	$15,000–$25,000
Pressure Ulcers	5–15 days	$20,000–$40,000
PE/DVT	3–10 days	$8,000–$30,000
Readmission Penalty		Up to 4% Medicare Reduction
PSI-90 Events (Aggregate)	3–10+ days	$10,000–$35,000+

Complications Potentially Exacerbated by Opioids

Opioid – Related Adverse Events That Can Increase LOS or Delay Discharge



*Some complications on the left (e.g., ileus, PONV, respiratory depression) may be opioid-related. Others are associated with surgical variability but can be compounded by poor pain control, sedation, or delayed mobility.

1. Agency for Healthcare Research and Quality (AHRQ). *Reducing Variation in Surgical Outcomes: The Case for Enhanced Recovery.* AHRQ.gov. 2. Centers for Medicare & Medicaid Services (CMS). *Care Variation and Outcome Disparities in Surgical Episodes.* CMS.gov.. 3. Premier Inc. *Variation in Surgical Practices: Impact of Opioid-Centric Pain Management.* Premier Healthcare Database. 4. Vizient Inc. *Benchmarking Surgical Variation: The Case for Enhanced Recovery Protocols.* Vizient Analytics Reports. 5. JAMA Surgery. *Association of Opioid Use With Increased Variation in Surgical Recovery and Outcomes.* JAMA Surg. 2020;155(7):e200000.. 6. Annals of Surgery. *Clinical Variation and Cost Implications of Non-Standardized Perioperative Pathways.* Ann Surg. 2019;270(4):647–653.7. Anesthesia & Analgesia. *Perioperative Opioid Use and Its Association With Length of Stay and Postoperative Complications.* Anesth Analg. 2021;132(4):e110–e119.

True Preventative Legislation:
The Non-Opioids Prevent Addiction in the Nation (NOPAIN) Act

- Consolidated Appropriations Act of 2023
  - **Mandates CMS reimburse for qualifying non-opioid drugs and devices used in ASC or HOPD settings for 3 years**

- Qualifying drugs will be reimbursed at **ASP +6%**

- Qualifying devices will be reimbursed **up to 18% of the OPD fee schedule amount for the OPD service**

- **Demonstrated the ability to reduce or avoid intraoperative or postoperative opioid use or the quantity of opioids prescribed**

Opioid Abuse and Dependence Put Financial Strain on the Workplace

90 days after diagnosis of opioid use disorder, average unadjusted **healthcare costs increased by 55% per member per month**[1]

Total workers' compensation **claim costs are up to 8 times higher** for patients prescribed 1 opioid vs no opioids[2]

To Payers, Employees, & Employers…

Up to 85% of workers' compensation claims with pain medication prescriptions included opioids[3]

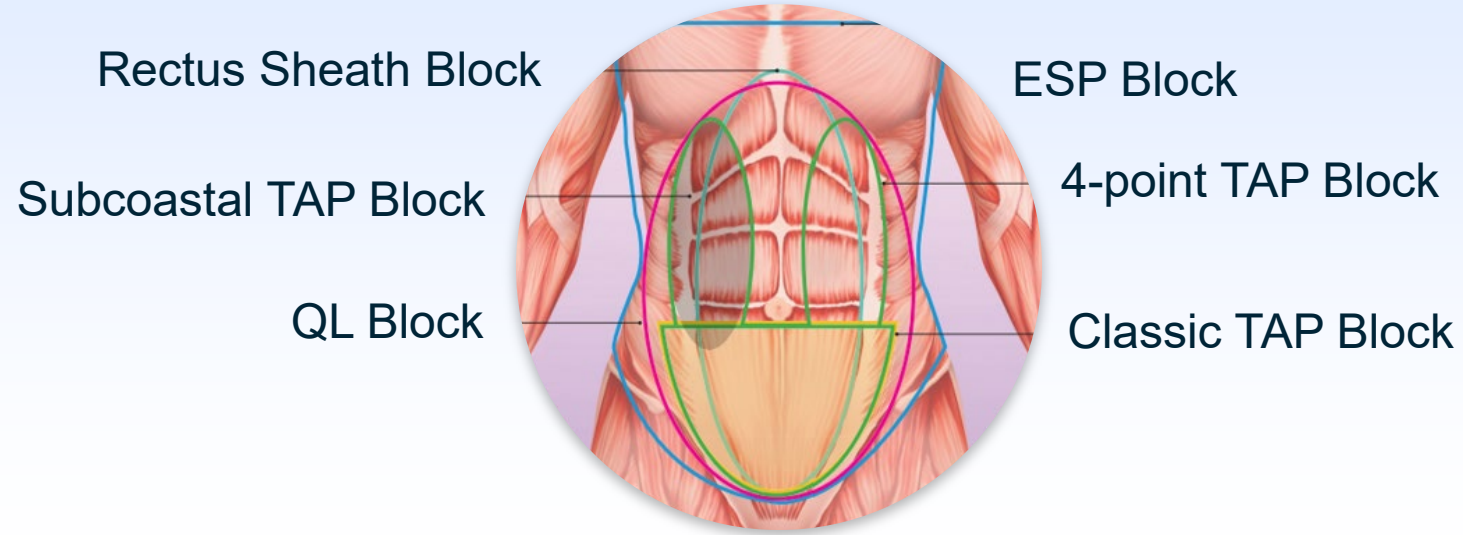
Workers' compensation claimants on long-term opioids (>90 days) typically **DO NOT return to work**[2]

1. LaRochelle MR, et al. *Med Care*. 2020;58:919-926. 2. Rosenblum KE. Opioids wreak havoc on workers' compensation costs. Lockton, Inc. Accessed November 8, 2023. https://www.akleg.gov/basis/get_documents.asp?session=28&docid=24570;
3. Thumula V, et al. Interstate variations in use of opioids, 4th edition. Workers Compensation Research Institute. Accessed January 10, 2024. https://www.wcrinet.org/reports/interstate-variations-in-use-of-opioids-4th-edition

Regional Field Blocks: Lowering Costs, Driving Efficiency, and Advancing Value-Based Surgical Care

A High-Value Strategy for Enhancing ERAS® Outcomes and Reducing Total Surgical Spend

Regional Analgesia:
A Strategic Lever for Direct and Indirect Surgical Cost Reduction



ESP=Erector Spinae Plane; TAP=Transversus Abdominis Plane; QL=Quadratus Lumborum

1. Gadsden J, et al. Local Reg Anesth. 2015;8:113-117.

MEETS A GROWING DEMAND

ERAS® Supporting the Migration to the HOPD Setting

With ever-increasing pressure to send patients home sooner, hospitals are faced with the challenge of improving the patient experience while also protecting the bottom line.

Decreases in…

- Opioid use[3]
- Opioid-related adverse events (ORAEs)[3]
- Length of hospital stay[3,4]
- Acute postsurgical pain[5]
- Risk of developing chronic pain[6]
- Postsurgical complications[7]
- Cost per patient[3,4]

Improvement in…

- Efficiency of hospital resources[3,4]
- Patient satisfaction[7]

Non-opioid liposomal bupiviacaine is proven to be an important part of the multimodal analgesia

HOPD = hospital outpatient department.
*The clinical benefit of the decrease in opioid consumption was not demonstrated in the pivotal trials.

Strategic Integration of ERAS® in Outpatient Surgery: Targeting High-Volume, High-Cost Episodes of Care

- **Hernia Repair**[1]
- **Hysterectomy**[6]
- **Breast Reconstruction**[2]
- **Spinal Fusion**[5]
- **Mastectomy**[3]
- **Orthopedics**[4]
- **Plastic Procedures**[4]
- **Gastric Sleeves**[7]

ERAS=enhanced recovery after surgery.

1. Majumder A, et al. J Am Coll Surg. 2016;222(6):1106-1115; 2. Batdorf NJ, et al. J Plast Reconstr Aesthet Surg. 2015;68(3):395-402;
3. Rojas KE, et al. Breast Cancer Res Treat. 2018;171(3):621-626; 4 Jenkins, J. S., & Rogers, **T. S.** (2023). *Journal of Orthopedic Surgery and Research, 18*(4), 125-138. https://pmc.ncbi.nlm.nih.gov/articles/PMC10566339/. 6. Rege A, et al. Cureus. 2016;8(11):e889;
5. Wang MY, et al. J Neurosurg Spine. 2017;26:411-418. 6. Baker BW, et al. J Pain Res. 2018;11:3109-3116. 10. Hutchins J, et al. Int J Gynecol Cancer. 2015;25(5):937-941. 7.Lemanu DP, et al. Br J Surg. 2013;100(4):482-489.

Regulatory Compliance and Accreditation: Measuring ERAS® and Non-Opioid Pain Management in DNV and JCAHO Surveys

Ensuring Quality & Compliance: How DNV and JCAHO Evaluate ERAS Protocols and Opioid Minimization

The Joint Commission

TJC supports incorporating non-opioid pharmacologic strategies to enhance post-surgical pain management in alignment with ERAS protocols.

DNV

DNV's accreditation standards address pain management, requiring healthcare organizations to implement effective pain assessment and management protocols.

1. Kaye, A. D., Urman, R. D., Cornett, E. M., Hart, B. M., Chami, A., Gagliardi, J. P., & Eng, L. K. (2019). Pain management in enhanced recovery after surgery (ERAS) protocols. *Pain and Therapy, 8*(1), 19–29. https://doi.org/10.1007/s40122-019-0110-5. 2.

Unlocking Value-Based Success: ERAS® + NOPAIN Act Alignment

QBRs Evaluating Implementation and Reimbursement

ERAS GAP Analysis

Nerve Block Workshops to Drive Migration to ASCs

EHR/EMR NOPAIN J-Code Evaluation

Unlocking Value-Based Success: ERAS® + NOPAIN Act Alignment

Driving Financial Performance, Patient Outcomes, & Regulatory Excellence

- ERAS Implementation Results in Proven Reduction in LOS and Complications
- NOPAIN Multimodal Analgesia Increased Reimbursement at ASP +6%
- Reduction in Post-Operative ER Visits / Re-Admission Penalties

Quintuple AIM for Sustainable Health Outcomes

- Improved HCAHPS Scores for Patient Experience
- Drives Lower Long-Term Cost by Minimization of Opioid Utilization
- Standardization Reduces Cost while Increasing Throughput
- Lowers Total Cost of Care (TCC) – CMS TEAM
- Minimizes Penalties and Establishes Accreditation

Driving Performance in a Value-Based Landscape

Financial Benefits

- LOS
- Total cost of care
- Readmission risk & subsequent penalties
- Boost high-revenue beds

Quintuple AIM

- HCAHPS Scores
- Evidenced-based practice
- Reduced care variability
- Highly reliable care
- Efficiency & performance

ERAS® & Field Blocks

- Non-opioid Pain Management Strategies
  - Aligned with TEAM Model & NOPAIN
  - Complementary Gap Analysis

THANK YOU