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

Healthcare Finance Leadership

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Better is possible.

Transforming Episode Accountability Model (TEAM) & CMS

2026-2031

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.

Transforming Episode Accountability Model

CMS

Mandatory Model: 2026-2030

The Transforming Episode Accountability Model (TEAM) will support people with Medicare undergoing certain surgical procedures by promoting better care coordination, seamless transitions between providers, and successful recovery.

Included procedures: lower extremity joint replacement, surgical hip femur fracture treatment, spinal fusion, coronary artery bypass graft, and major bowel procedure.

Episode Components

Participating acute care hospitals will be responsible for overseeing a patient's care from hospital admission or outpatient procedure through 30 days after the individual leaves the hospital, including **coordination and communication** between providers across all care settings and with the patient and family. An episode includes:

- Inpatient hospital services
- Physician services: specialists and primary care
- Outpatient therapy services
- Skilled nursing facilities
- Home health services
- Clinical laboratory services
- Durable medical equipment
- Medications (Part B drugs and biologicals)
- Hospice

Participants will connect the patient to a primary care provider after they leave the hospital to support continued recovery and positive long-term health outcomes.

Model Goals

- **Quicker recovery after surgery**
- **Fewer avoidable hospital and emergency department visits**
- **Shorter hospital/post-acute care stays**
- **Smoother transitions to primary care**
- **Lower costs**
- **More equitable health outcomes**

CMS's Transforming Episode Accountability Model (TEAM)

TEAM represents a meaningful shift in how CMS reimburses hospitals for surgical episodes of care—**moving from traditional fee-for-service to episode-based accountability for cost and quality.**

Under TEAM, **hospitals are financially responsible for the total cost of care** for five defined surgical procedures, covering the hospital stay and all related services **for 30 days after discharge.**

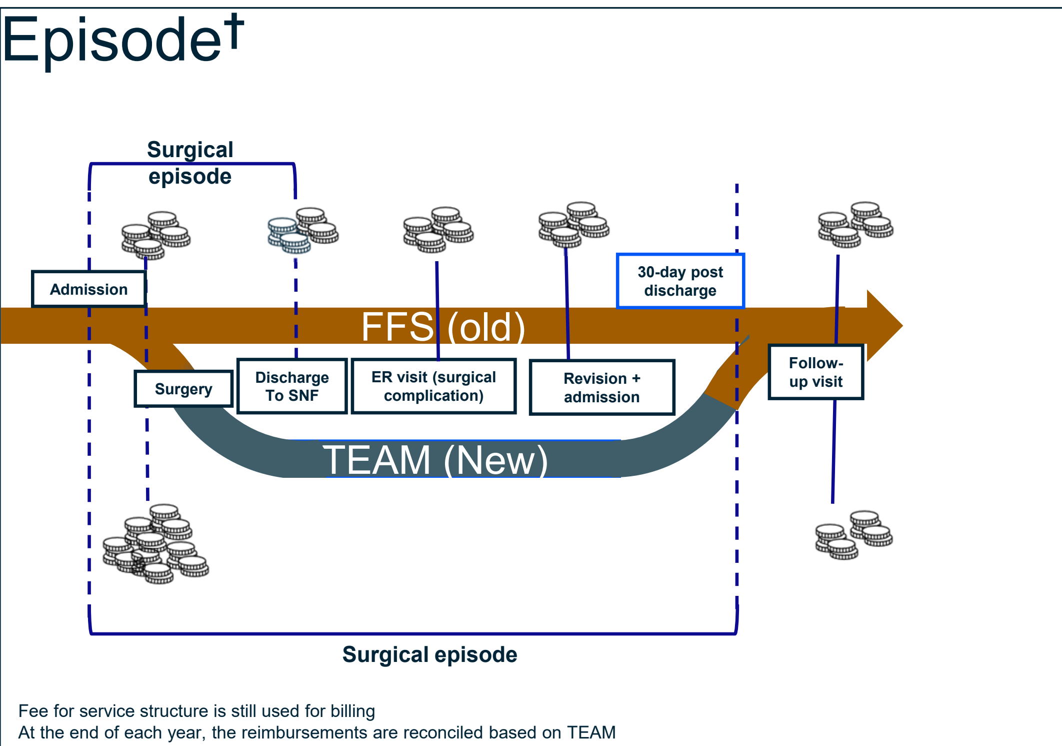
Program Overview

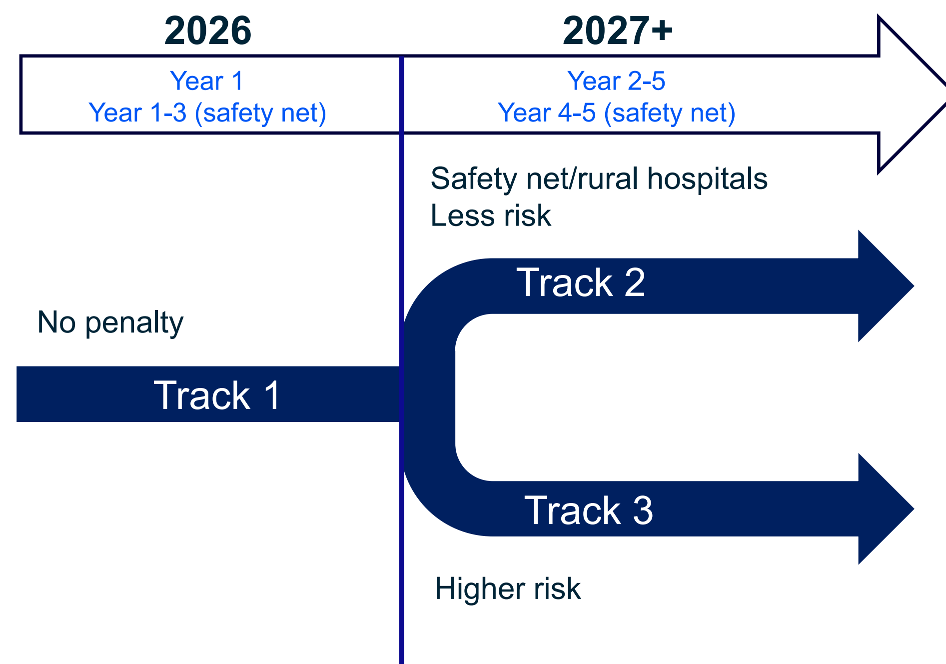
- Bundled payment model spanning procedure + 30 days post-discharge
- Hospitals accountable for total cost + quality of care
- Quality measured by readmissions, patient-reported outcomes (hip/knee), and patient safety (PSI 90)

Covered Procedures that Impact Nonopioid Pain Strategies

- **Major Bowel Procedures**
- **Lower Extremity Joint Replacement (LEJR)**
- **Spinal Fusion**
- **Surgical Hip/Femur Fracture Treatment (SHFFT)**
- **Coronary artery bypass grafting (CABG)**

TEAM Overview





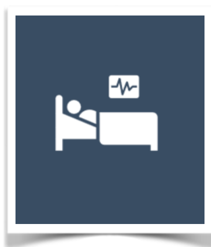
†referring to an episode of care, which is a set of services provided for a specific illness or medical condition over a defined period of time

Elevating Performance Across High-Volume, High-Risk Episodes

All Cause Readmissions
Hybrid Hospitals

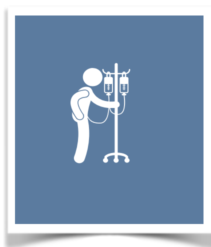
These readmissions often signal preventable gaps in care coordination, patient education, discharge planning, or post-acute support. High readmission rates are associated with worse patient outcomes, avoidable costs, and reimbursement penalties.

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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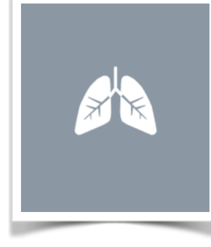
Hospital Harm
Falls with Injury

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.

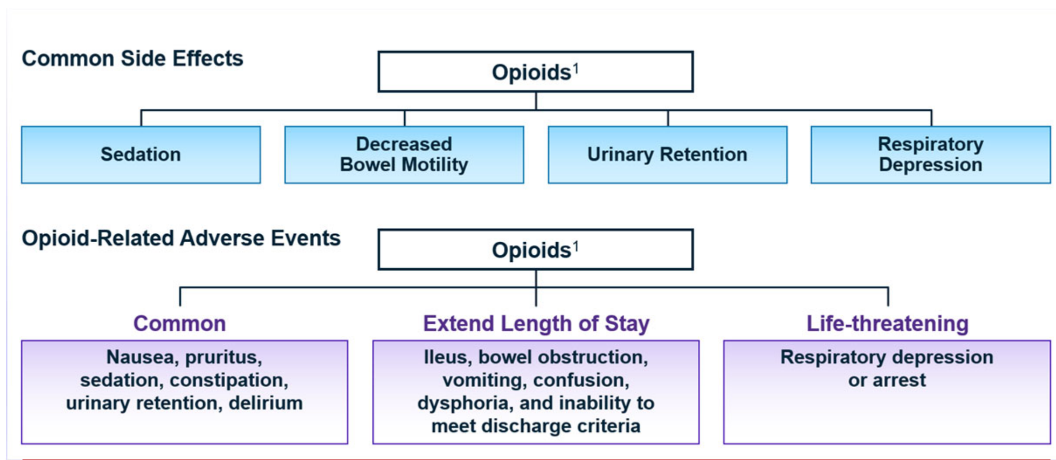
1.Centers for Medicare & Medicaid Services. *TEAM Care Quality Score Methodology.* 2024. https://innovation.cms.gov/media/document/team-cqs-methodology

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.

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

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

American Association of Oral and Maxillofacial Surgeons

•**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 Anesthesia, 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. American 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. American College of Obstetricians and 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. Society for 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

Reimbursement Example of Revenue Loss or Gain with ERAS® protocols and Non-Opioid Strategies for total knee arthroplasty

Example: Nevada Hospital System Medicare Billable Charges for TKA = $50,000,000

1. Total TKA cost = $27,491
2. Total monthly TKA Volume = 1818 cases
3. Bottom 10% of TPS hospital ratings will lose nearly all the 2% at risk revenue = $1,000,000
4. Total revenue lost per case = $549.82
5. **Total Medicare collected = $49,000,000**

Nevada Hospitals rated 5 Stars = 0

Example: Utah Hospital System Medicare Billable Charges for TKA = $50,000,000

1. Total TKA cost = $27,491
2. Total monthly TKA Volume = 1818 cases
3. Top 10% of TPS hospital ratings will gain +5% net over base (2% withhold plus ~3% bonus from redistribution)
4. Total revenue gained per case = $1,374.55
5. **Total Medicare collected = $52,500,000**

Utah Hospitals rated 5 Stars = 13

Arthroplasty Today, 2020 National Outpatient Estimate: https://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0257555

Reducing Recovery Variability to Improve Financial Performance

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.

After Surgery, Uncontrolled Pain and Pain Management Choices Can Impact Patient Flow Starting in the PACU

ORAEs in the PACU include **pruritus**, **nausea and vomiting**, **urinary retention**, and **respiratory depression**[1]

Pain is the most common cause of PACU delays, affecting 24% of patients overall[1]

PACU time is expensive: second only to OR time in terms of hospital monetary costs[2]

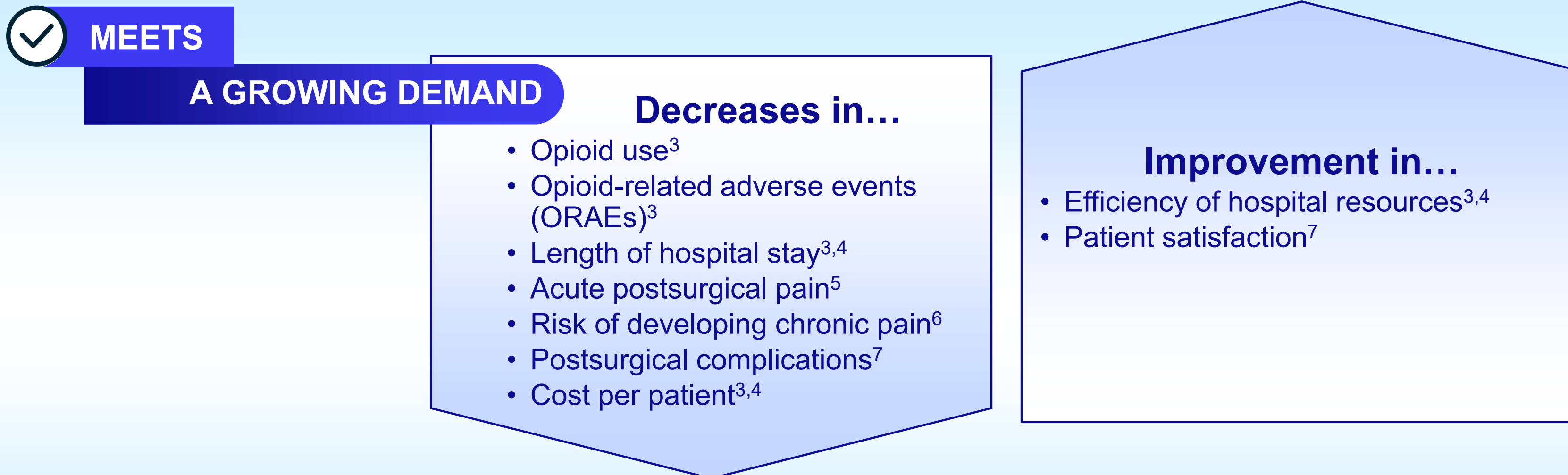
Efficient patient flow in the PACU prevents bottlenecks for patients coming out of the OR

- Hospitalizations involving OR procedures account for 47% of total hospital costs[3]

OR=operating room; ORAEs=opioid-related adverse events; PACU=postanesthesia care unit.
1. Joshi GP and Ogunnaike BO. Anesthesiol Clin North America. 2005;23:21-36; 2/ Gandhi K et al. Anesthesiol Clin. 2012;30:e1-e15; 3. Weiss AJ et al. Agency for Healthcare Quality and Research. Characteristics of Operating Room Procedures in U.S. Hospitals, 2021. HCUP Statistical Brief #281 August 2021. https://hcup-us.ahrq.gov/reports/statbriefs/sb281-Operating-Room-Procedures-During-Hospitalization-2018.jsp. Accessed January 25, 2024.

Optimizing Site of Care to Reduce Episode Cost and Improve Performance Under Value-Based Models

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.



Nonopioid, opioid-sparing strategies within ERAS

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

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**

Clinical Quality

- Drives use of evidence-based protocols and guidelines
- Use of nonopioid pain strategies **addresses CQS benchmarks**
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Cost Containment & Savings

- Addresses withholding and penalty (readmit/HAC) models
- **Direct revenue:** ~ 60% of overall revenue and expense related to perioperative services
- **Indirect revenue:** PACU time reduced, decreased nursing work burden, opioid epidemic

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- Cost savings through reliable care
- **Boost high revenue beds**
- Regulatory excellence

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Increased Hospital Revenue

- **Responds to Risk Based Payments**
- Enhances patient experience & public perception

Complimentary Service in a Value-Based Landscape

ERAS

- Gap Analysis
- Protocol design
- Implementation support

HCP Education

- Block workshops
- Nursing education

Rev Cycle

- Billing & J-code support
- Maximizing reimbursement

THANK YOU