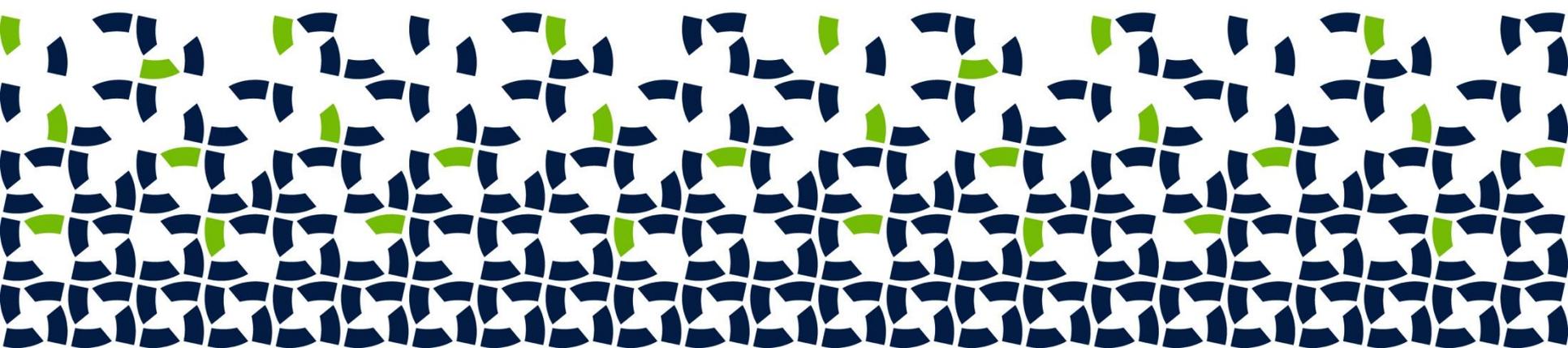




THE POSTOPERATIVE EXPERIENCE: BETTER ENGAGEMENT FOR BETTER CARE

Effective patient engagement
after discharge, particularly
through technology, can help
improve outcomes

2017



Changing Environment

Bundled Payments for Care Improvement Initiative (BPCI) and National Pilot

Update to the BPCI program:

As of April 18, 2014, the BPCI Open Period is closed.

For AMCs who applied in November 2013 and April 2014:

Your start date is January 1, 2015.

📅 December 23, 2015 by [Kristi Crowe](#)

Bundled Payment for Joint Replacement Coming Soon to You (or a Hospital Near You)



Breaking: CMS proposes mandatory bundling for CABG, AMI

4:44 PM on July 26, 2016 by [Megan Tooley](#)

A shockwave hit the world of CV services on Monday, as CMS released a proposal for a new mandatory bundled payment model for CABG and AMI.



THE HEALTHCARE ENVIRONMENT IS CHANGING

Surgical programs are now responsible for more than simply carrying out a proper procedure

Patients and payors expect their hospital teams to be **engaged in their treatment** through the entire episode of care, **from diagnosis to recovery.**



Shifts in reimbursement, like **bundled payments**, mean that healthcare facilities are pressured to **send patients home sooner to minimize costs**, while maintaining patient outcomes and satisfaction.¹⁻³



Why the change?

- Goal to improve care coordination and patient outcomes
- Attempt to reduce cost, redundancy, unnecessary treatments
- Reimburse on basis of expected costs for a clinically defined episode of care
- Align payer and provider incentives to maximize patient-centric value creation
- Focus on *value* (quality/cost)
- According to CMS, the new CJR model will contribute to the goal of having 50% of all Medicare payments made via alternative payment models by 2018.



Shift from Volume to Value-based Care?

Volume

- Fragmented providers and payments
- No uniform quality
- Fees for volume
- Demand increasing

Value

- Collaboration, connectivity
- Clinical, financial data, analysis
- Optimize outcomes
- Accountable care



"Sure, we doctors make a lot of money. But, don't forget, we spend a heck of a lot, too."

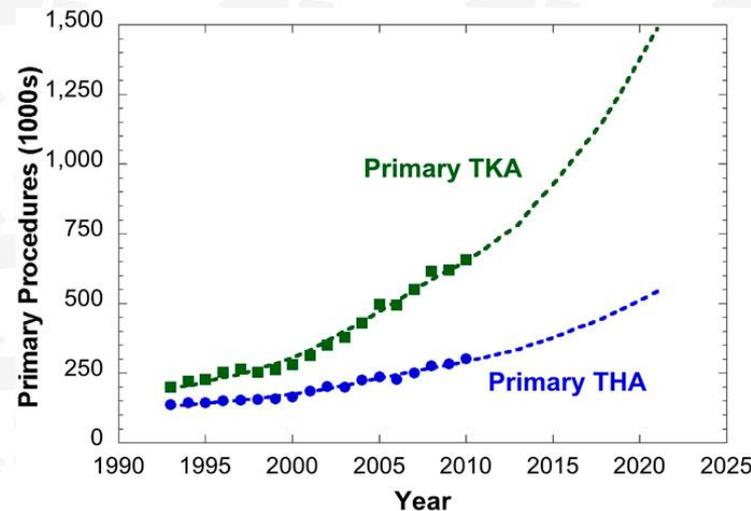
Why Joint Replacement?

- ✓ Inherently have clearly defined episodes of care
- ✓ Predictable clinical presentation
- ✓ Relatively homogenous patient population
- ✓ High volume
- ✓ Have similar related usual expenses
- ✓ Reproducibility of operative procedures and postoperative aftercare
- ✓ Robust outcome measures



TKA Growth and Cost

- Annual TKA volume- 500,000 in 2005 to 3.48 million in 2030
- DRG 470: most frequently billed DRG to Medicare
- Growth insensitive to economic downturn
- In 2013, Medicare spent more than \$7 billion on hospitalizations for hip and knee replacement surgeries

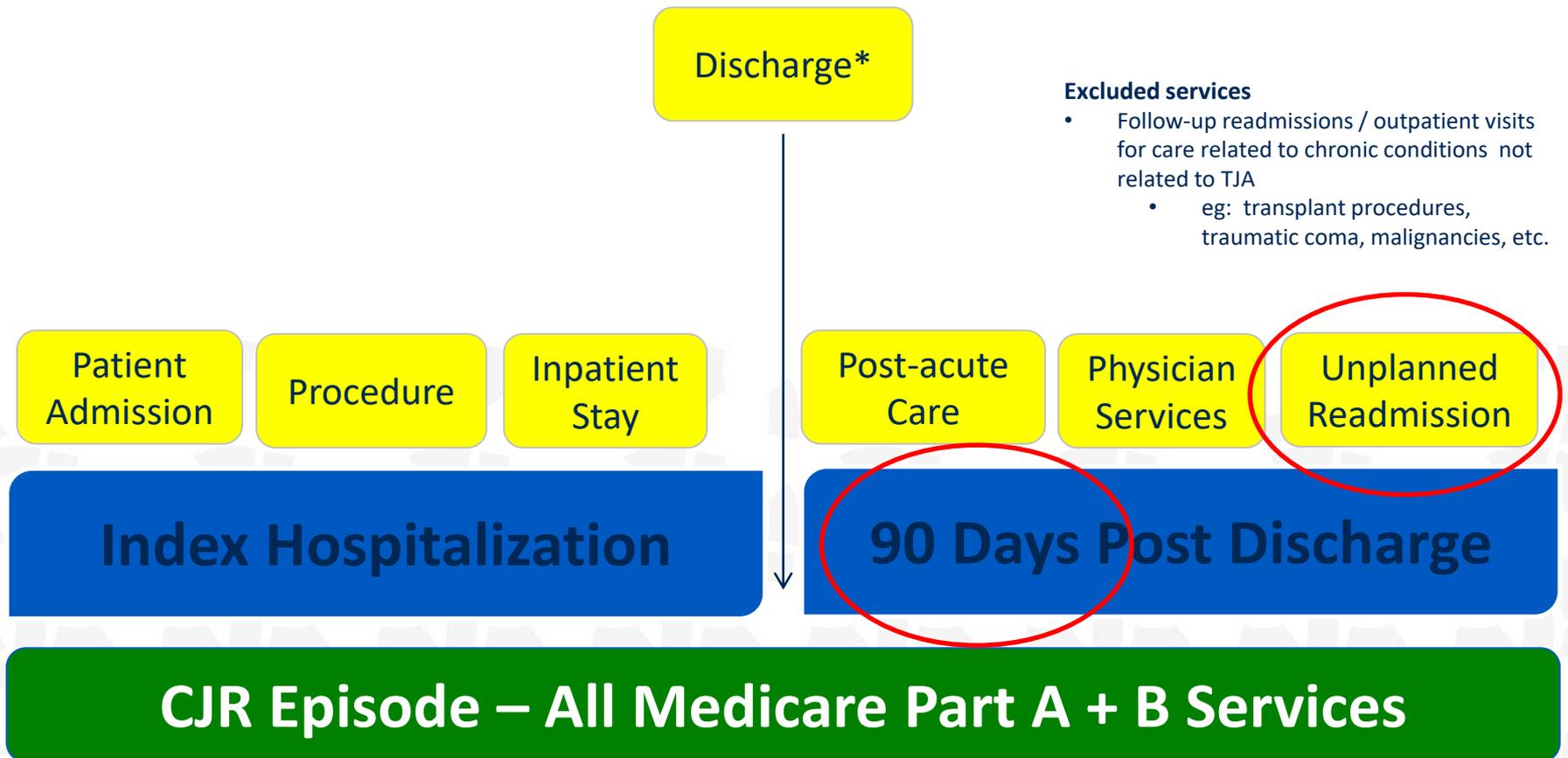


Why opportunity to save?

- Costs *vary* based on the provider and location of service, the quality and cost of these surgeries vary greatly
- Rate of complications such as infections or implant failures after surgery can be more than *three times* higher at some facilities than others, causing readmissions and more cost
- Model is designed to hold hospitals accountable for the quality of care they deliver from surgery to recovery
- Provides a shared risk/reward environment
- Improve quality, reduce costs



Episode Definition

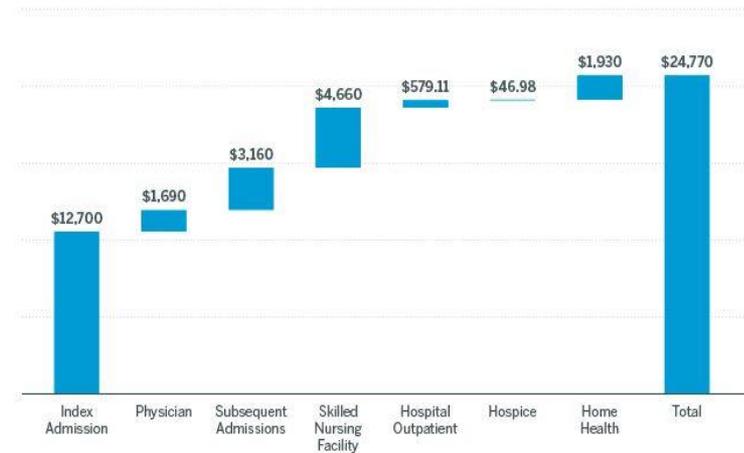


Episode-based Payments

The average cost per CJR episode breakdown by care setting includes:

- Inpatient hospital stay: \$13,193
- Physician: \$1,675
- Inpatient rehabilitation facility: \$1,568
- Home health agency: \$2,123
- Skilled nursing facility: \$5,034
- Hospital readmissions: \$1,155
- Outpatient: \$604
- Durable medical equipment: \$122

Episode Costs for **Major Joint Replacement** of the Lower Extremity (2013)
90 Days After Index Admission



Source: The Advisory Board Company's Episodic Cost Profiler.



Learn more at: advisory.com/daily-briefing or follow @daily_briefing on Twitter
© The Advisory Board Company

The total Medicare payment per episode will be \$25,565 with 39 percent tied to post-discharge care.



Episode-based Payments

Provider cost distribution

Average episode cost per provider¹

- Eligible for gain sharing based on cost, didn't pass quality metrics
- Gain sharing
- No change
- Risk sharing

Average cost/episode

\$

Risk sharing

Pay portion of excess costs

No change in payment to providers

+ Gain sharing

Eligible for incentive payment

Acceptable

Commendable

Gain sharing limit

ILLUSTRATIVE

Principal Accountable Provider

¹ Each vertical bar represents the average cost for a provider, sorted from highest to lowest average cost

QUALITY MEASURES – COMPOSITE QUALITY SCORE (0-20 POINTS)

50%

Complication Rates

- Acute myocardial infarction
- Pneumonia, or sepsis/septicemia within 7 days of admission
- Surgical site bleeding, pulmonary embolism or death within 30 days of admission
- Mechanical complications, periprosthetic joint infection, or wound infections within 90 days of admission

40%

HCAHPS

- 32 question survey about aspects of their hospital experience

10%

Patient Reported Outcomes

- Voluntary submission of PRO and risk variable data
- Pre-operative and post-operative data
- Narcotic consumption, pain, range of motion etc.
- Additional 2 points in year 1-3, required year 4-5

Surgeon's Role

- *Physician as initiator*

Whether responsible for episode or not, surgeon's must be drivers of change

- Administration understands the importance of the surgeon in directing care and negotiating relationships
- Sets the expectations of patient and team
- Directs entire care continuum
- Evaluates and maintains goals



Active Monitoring

Team approach:

- Program Coordinator
- Alignment with referral sources
- Patient goal setting
- Advanced Care Planning
- Patient / caregiver education
- Nurse coordinator
- On-going progress towards goal discussions
- Discharge planning
- Appointment set up
- Follow-up calls
- Patient satisfaction interview process



DETAILED AND ACCURATE FEEDBACK ON PATIENT RECOVERY IS HARD TO GATHER

Patient experiences during the recovery period offer valuable insights, but are not efficiently monitored

- Scheduled follow up appointments leave a **gap in knowledge**, as patients may not remember key details from weeks earlier
- **Nursing teams are already taxed** with patient care responsibilities, and have little time for follow up calls
- HCAHPS and other general patient surveys provide aggregate feedback **weeks or months after it is collected**, too late to impact individual patient care



This gap in knowledge can impact clinical outcomes, patient satisfaction, and ultimately, financial performance.

DIGITAL PATIENT ENGAGEMENT IN THE POSTOPERATIVE PERIOD IS CRITICAL

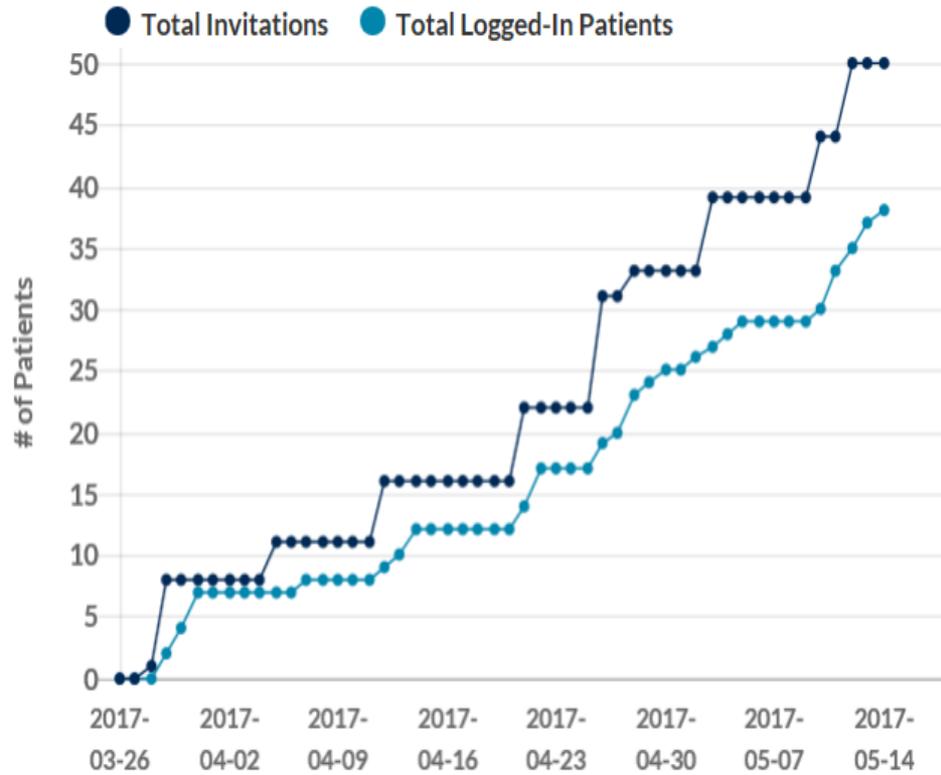
In the absence of human touchpoints, technology can bridge the gap

By implementing a digital solution to monitor post-discharge patients:

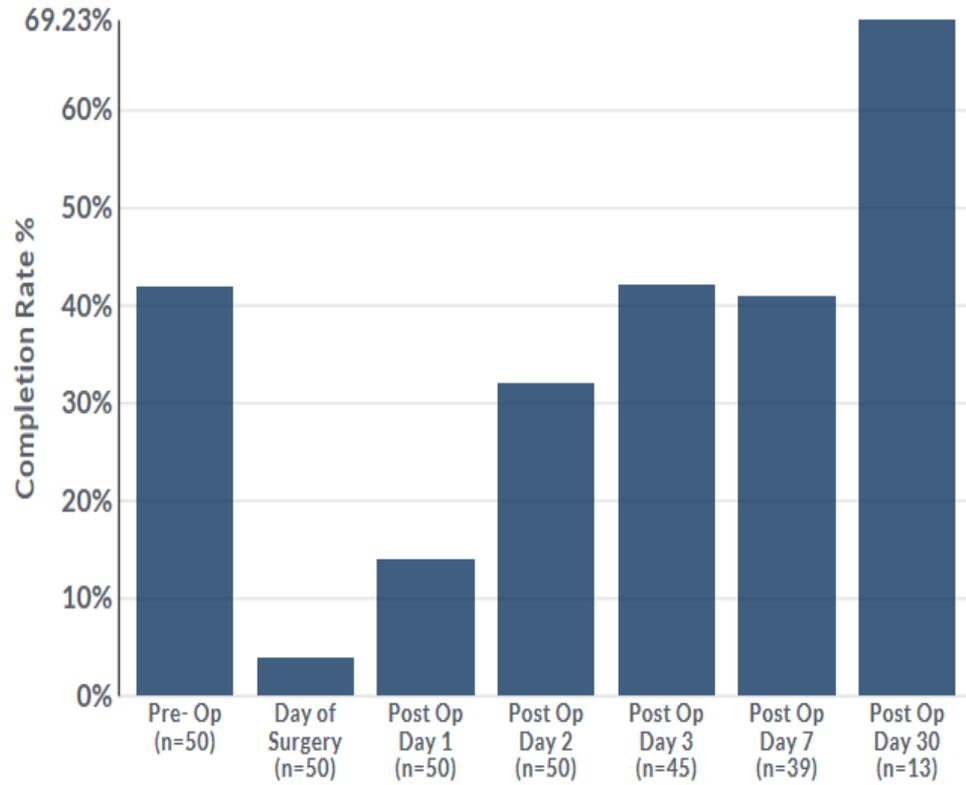
- Administrators can monitor trends in outcomes by physician or procedure and adjust protocols quickly to ensure a consistent standard of care is met across all procedures
- Surgical Programs can build a reputation for providing superior patient care in their communities, and provide data to prove it
- Physicians and nurses can focus on what they do best—providing high-quality patient care



PATIENT ENGAGEMENT



ON-Q TRAC COMPLETION RATE



ON-Q* TRAC PROVIDES REAL-TIME INSIGHTS AND ACTIONABLE ANALYTICS

Patient-reported feedback delivered via ON-Q* TRAC would allow providers to proactively intervene, which may minimize ER visits and readmissions, and impact bundled payment reimbursement.^{2,9-10}

- Delivers real-time patient-reported data from pre-op to day 90 through a user-friendly dashboard



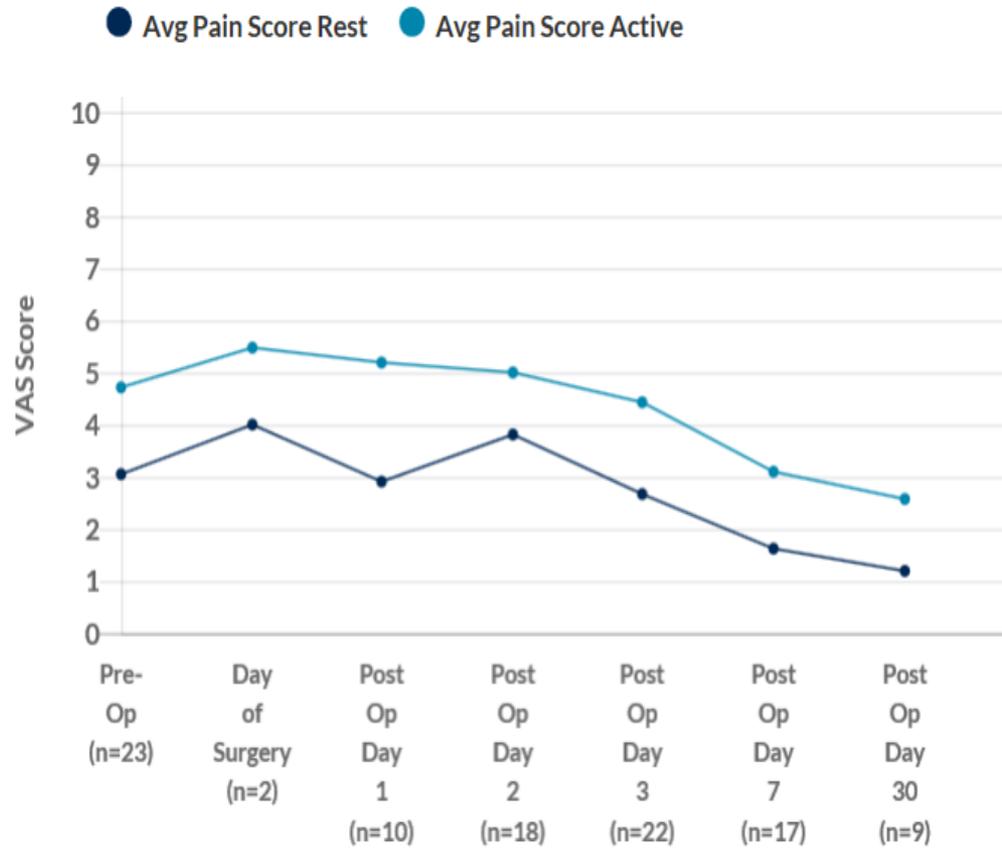
- Insight into clinical outcomes and patient satisfaction enables administrators to quickly implement protocol changes^{2-8,11-12}
- Aggregate dashboards with trend data can be used to assess efficiencies, physician success, and negotiate contracts with staff and/or payers

Track critical postsurgical care metrics, including:

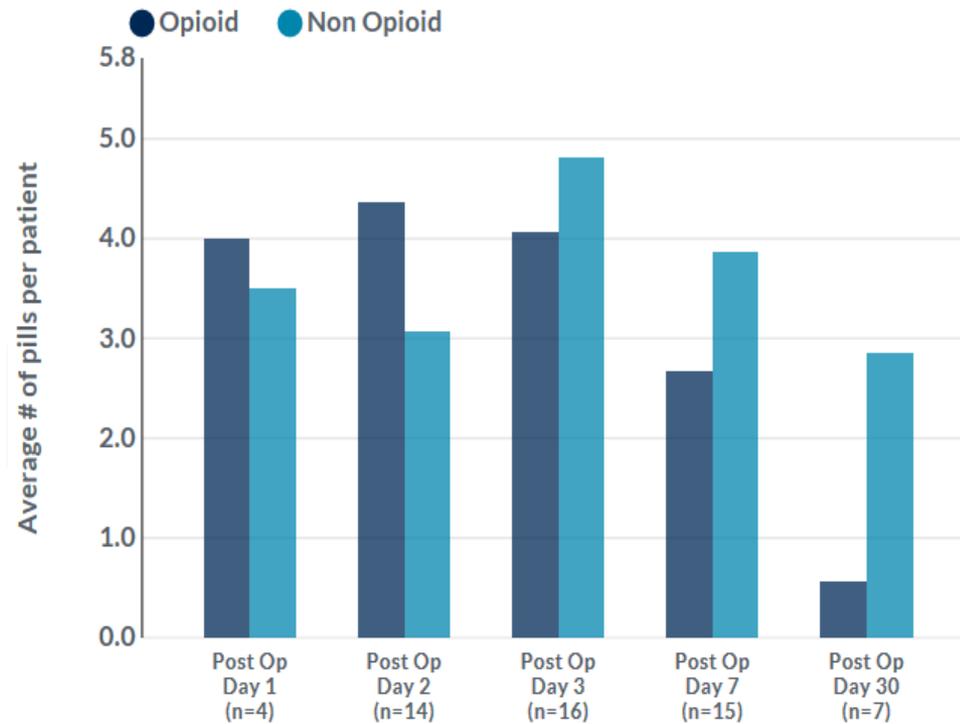
- Pain
- Opioid consumption
- OTC medication use
- Side effects/ER visits
- Functional recovery
- Patient satisfaction



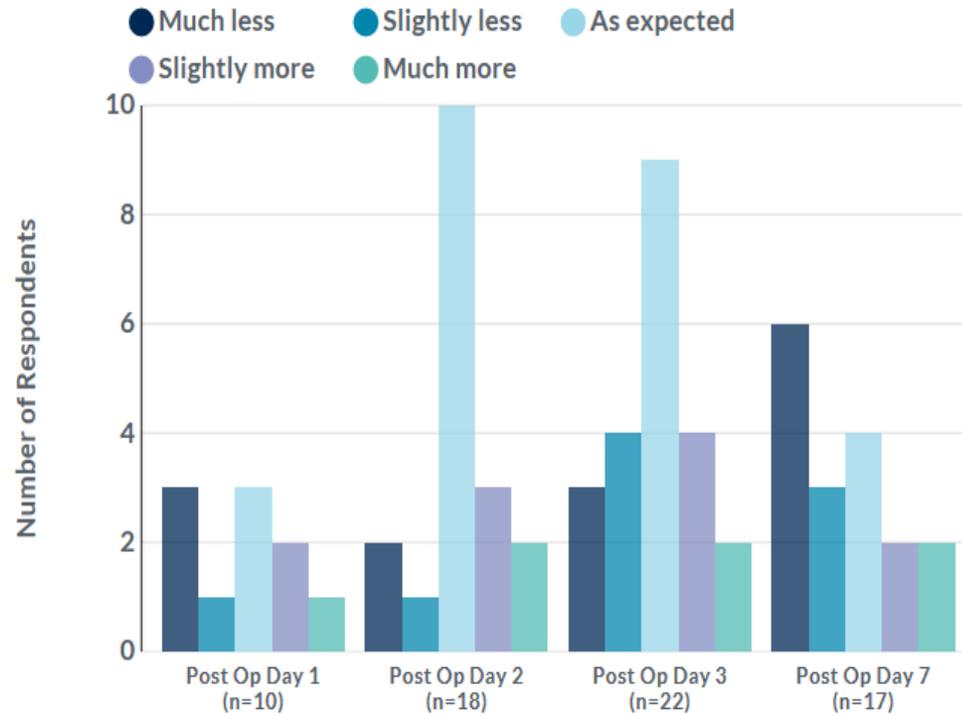
VAS PAIN AVERAGE



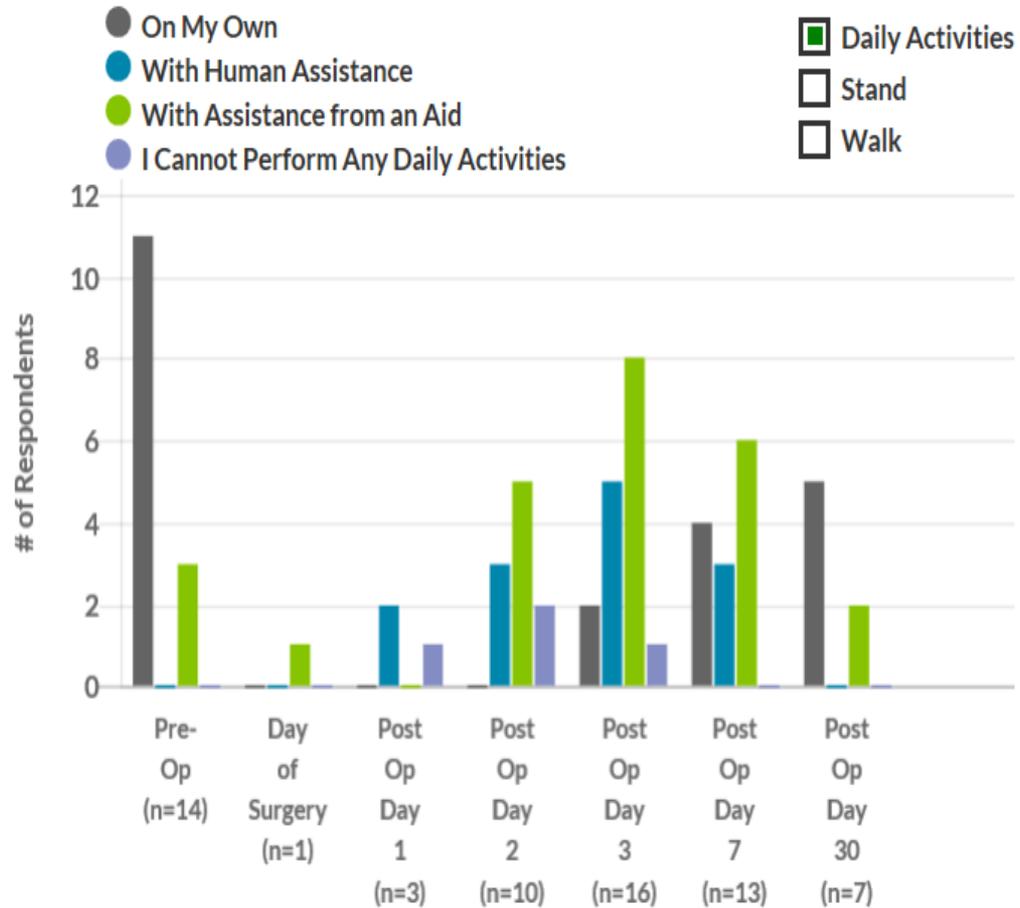
PAIN MEDICATION QUANTITY FOLLOWING SURGERY



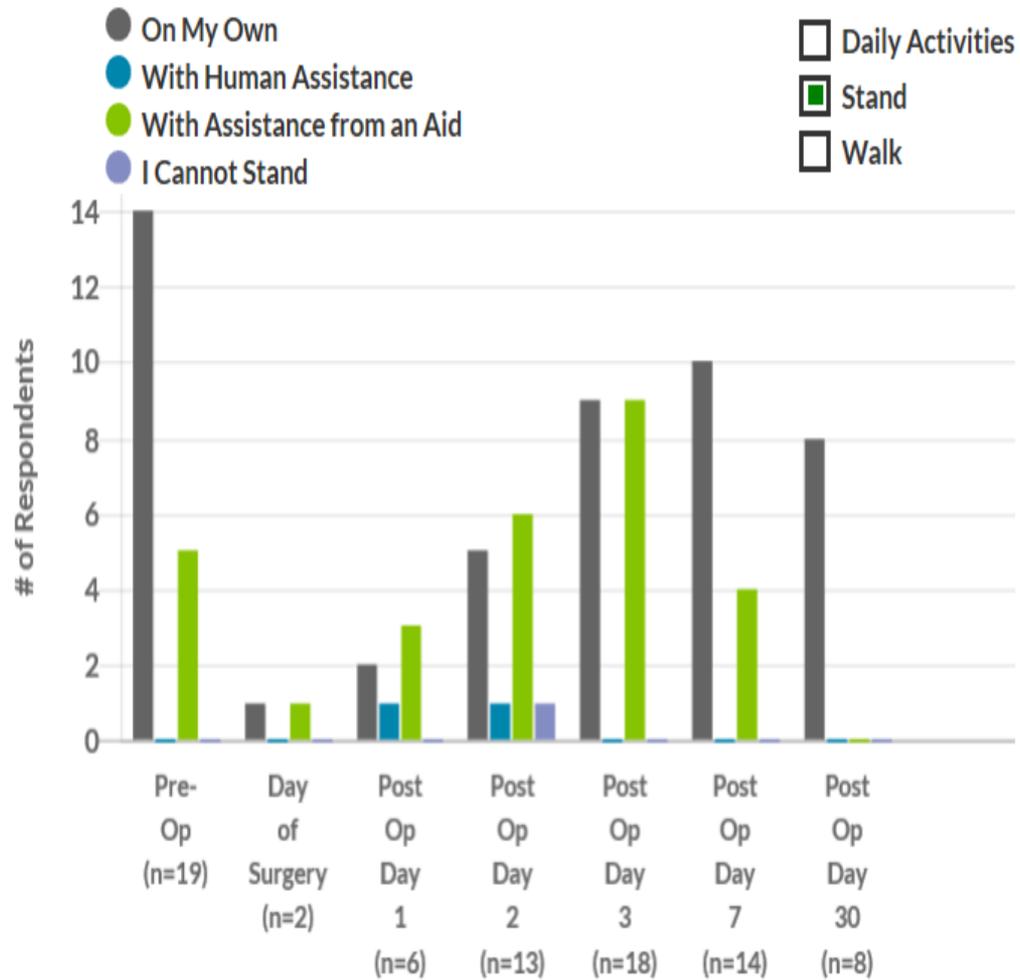
PAIN COMPARED TO EXPECTATIONS



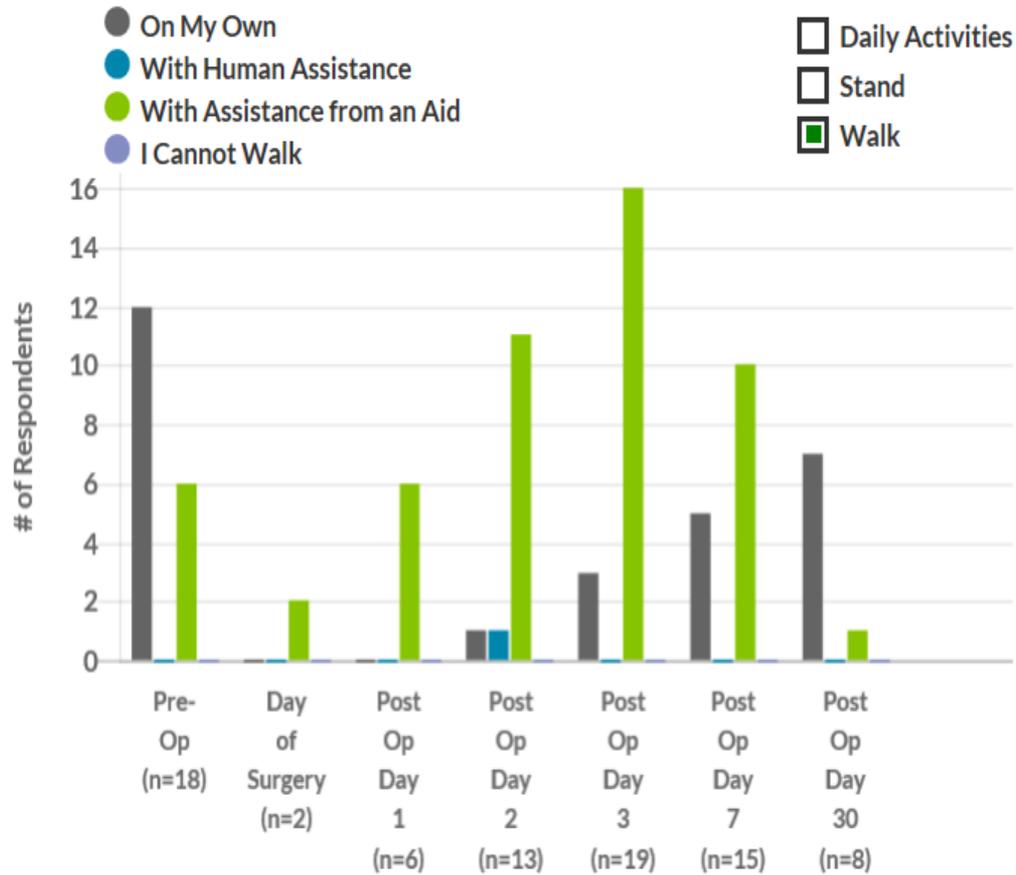
FUNCTIONAL RECOVERY - DAILY ACTIVITIES



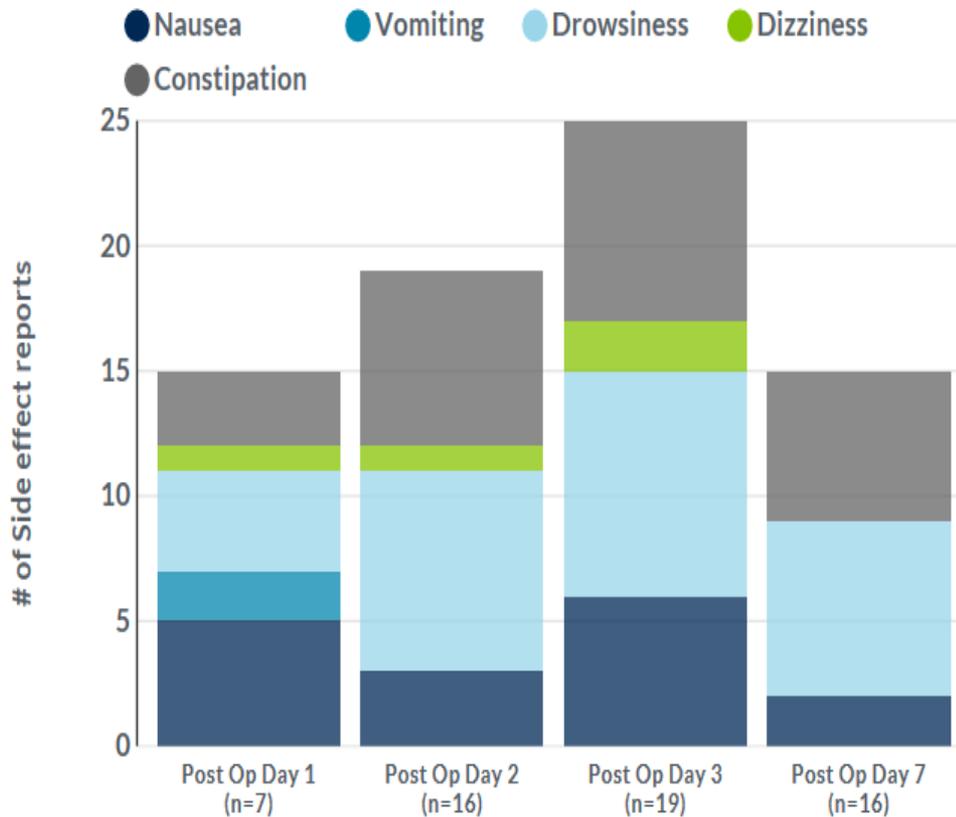
FUNCTIONAL RECOVERY - STAND



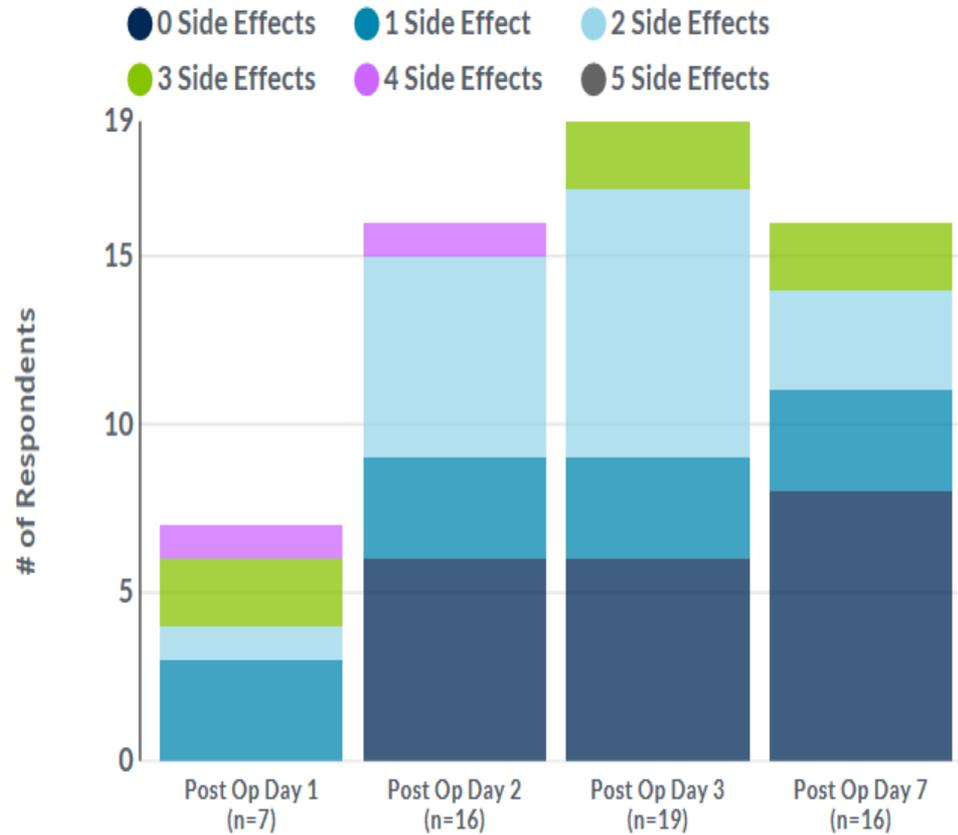
FUNCTIONAL RECOVERY - WALK



SIDE EFFECTS REPORTED FOLLOWING SURGERY



NUMBER OF SIDE EFFECTS REPORTED FOLLOWING SURGERY

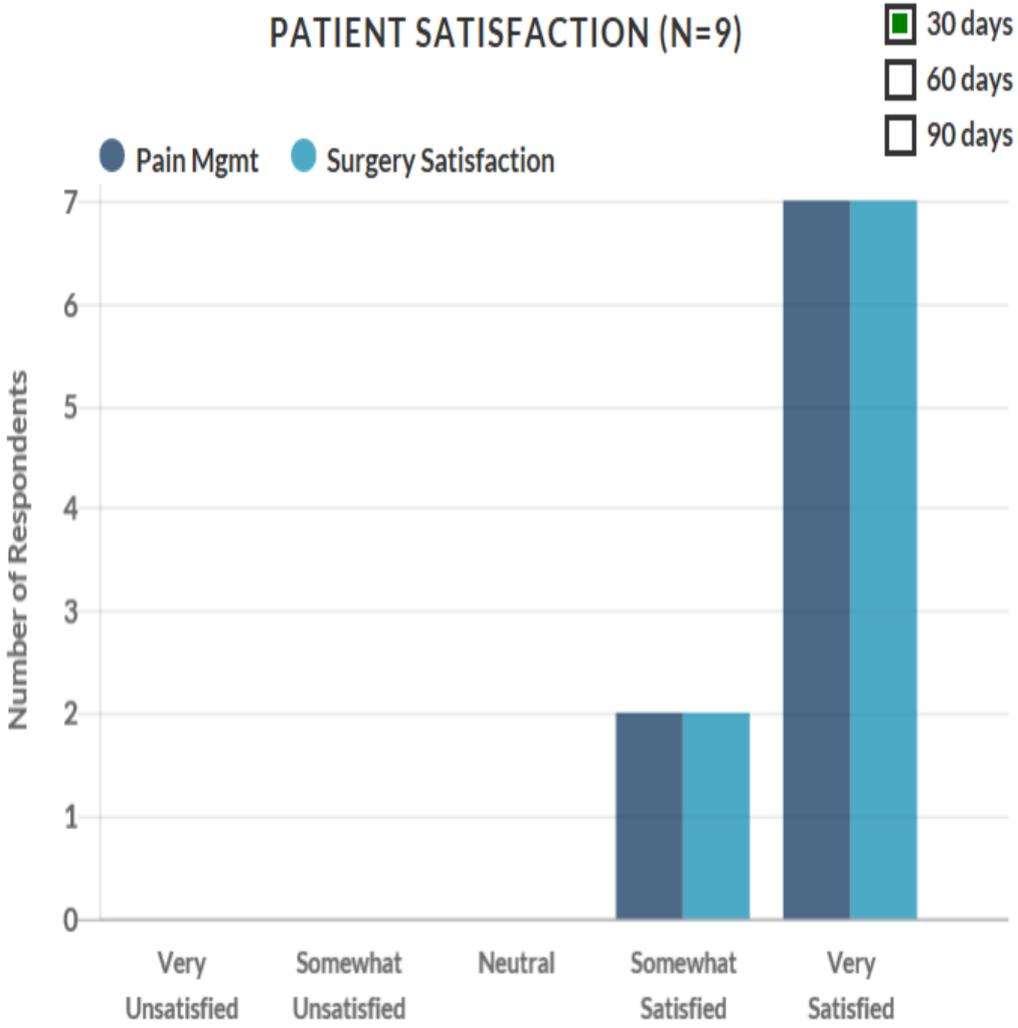


CONNECTIVITY CAN INCREASE PATIENT SATISFACTION

- Gain visibility into postoperative experiences through patient-provided real-time feedback—accessible from desktop and mobile devices—to help improve the treatment experience
- Increased hospital, physician and patient connectivity and communication enhances patient experience/ satisfaction scores, may help improve outcomes, and in turn, can boost hospital reputation¹⁰

ON-Q* TRAC provides real-world evidence that helps market your institution for proven outcomes, better pain scores and satisfied patients

PATIENT SATISFACTION (N=9)



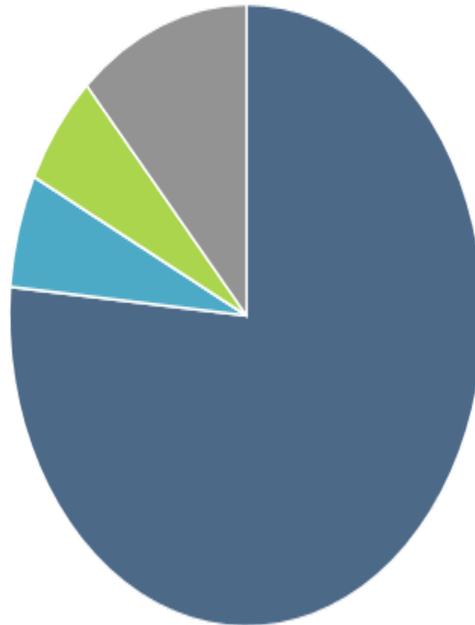
BETTER ENGAGEMENT FOR BETTER CARE

ON-Q* TRAC is a simple and effective tool to remain engaged with patients during recovery and can improve clinical and financial outcomes for surgical programs.



DISCHARGE DISPOSITION

- Home Without Skilled Home Care
- Home With Skilled Home Care
- Skilled Nursing Facility
- Inpatient Rehabilitation Facility
- Others



Economic Impact of ON-Q – CJR Program

Decrease LOS Ave 1.1 to 1.5 days

Example: Decrease LOS 1 day at \$1,900 per day X 200 total hips/knees per year = \$380,000 cost savings per year

Reduces the need for SNF or inpatient rehab services

Average nightly cost of SNF - \$300 - \$700

Average LOS in SNF 19 days - \$5,700 - \$13,300

Average daily cost of Home Health Care - \$100 - \$200

Reduction in ER/Readmission rates follow surgery.

National average cost of ER = \$1,400-\$2,000

Average THR readmission costs = \$12,300, 8.2 - 3.4 percent readmission rate

Average TKR readmission costs = \$10,200, 5.1 - 3.4 readmission rate

Reduce risk of opioid related adverse event

2013 study found average cost to treat an ORADE was \$4,707

Ave readmission costs surgical complications (pain) - \$36,000 THA \$61,000 TKA

Summary

ON-Q Trac – Patient engagement and outcomes tracking tool

- Provides valuable insight into clinical outcomes and patient satisfaction
- Tracks pain scores, medication consumption, surgical experience, ER/readmission rates and overall satisfaction
- Meaning analytics to benchmark providers and identify high cost surgeries
- Useful tool in environment of bundled payments

REFERENCES

1. London D, Vilensky S, O'rourke C, Schill M, Woiccehovich L, Froimson M. Discharge Disposition After Joint Replacement and the Potential for Cost Savings: Effect of Hospital Policies and Surgeons. *The Journal of Arthroplasty* 31.4 (2016): 743-48.
2. Hegji C, Self D. The impact of hospital quality on profits, volume, and length of stay. *Health Mark Q.* 2009;26(3):209-223.
3. Senot C. The impact of combining confor````mance and experiential quality on hospitals' readmission and cost performance. *Management Science.* 2016;62(3):829-848.
4. Collier M, Basham L. Patient Engagement: Happy Patients, Healthy Margins. Rep. Accenture, 3 Oct. 2015. Web. 3 Aug. 2016.
5. Kalis B, Froehlich J, Burke A, Warren M. Losing Patience: Why Healthcare Providers Need to Up Their Mobile Game. Rep. N.p.: n.p., 2015. Digital Health Strategies - Accenture. AccentureHealth, 9 Dec. 2015. Web. 03 Aug. 2016.
6. Sands D. Patients Overwhelmingly Believe in Partnership with Their Clinicians to Improve Health. E-patients.net Blog. Society for Participatory Medicine, 15 Jan. 2016. Web. 03 Aug. 2016.
7. Carrus B, Cordina J, Gretz W, Neher K. Measuring the Patient Experience. Rep. McKinsey & Company, Aug. 2015. Web. 3 Aug. 2016.
8. Rennke S, Kesh S, Neeman N, Sehgal N. Complementary Telephone Strategies to Improve Postdischarge Communication. *Am J Med.* 2012; 125:28-30.
9. U.S. Department of Health and Human Services. HHS Press Office. Better, Smarter, Healthier: In Historic Announcement, HHS Sets Clear Goals and Timeline for Shifting Medicare Reimbursements from Volume to Value. HHS.gov. US. Department of Health and Human Services, 26 Jan. 2015. Web. 4 Aug. 2016.
10. Hachem F, Canar J, Fullam F, Gallan A, Hohmann S, Johnson C. The relationships between HCAHPS communication and discharge satisfaction items and hospital readmissions. *Patient Experience Journal.* 2014; Vol. 1: Iss. 2, Article 12.
11. Centers for Disease Control and Prevention. Hospital value-based purchasing. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/hospital-value-based-purchasing/index.html?redirect=/hospital-value-based-purchasing/>.
12. Kessler E, Shah M, Gruschkus S, Raju A. Cost and quality implications of opioid-based postsurgical pain control using administrative claims data from a large health system: Opioid-related adverse events and their impact on clinical and economic outcomes. *Pharmacotherapy.* 2013;33(4):383-391.