Keys to Success in the CJR Bundled Payment Program

Joseph A Bosco MD
Professor and Vice Chair
NYU Langone Department of Orthopedic Surgery

2017 OR Managers Bootcamp
Nashville, TN
June 20, 2017
Disruptive Change: Our Opportunity

- The change is occurring now
- Agnostic to politics
- Those who accept and embrace win
CREATING VALUE: THE MATH

• Value = Outcomes/cost

  • Outcomes which matter to patients

• Theoretically if we decrease cost by 50% and decrease outcomes by 10% we have created value

• Not acceptable
  • Any decrease in cost cannot result in a decrease in outcomes
Volume Shift to Low Cost Centers

Patients Choosing High-Price vs. Low-Price California Hospitals for Knee or Hip Replacement Surgery, 2008-12

- CalPERS low-price hospitals
- Anthem low-price hospitals
- CalPERS high-price hospitals
- Anthem high-price hospitals

Referencing pricing implemented

Percent of patients choosing

2008 2009 2010 2011 2012*
The Seven Pillars

1) Coordinate Care Throughout Episode
2) Preoperative identification and modification of patient risk factors
3) Identify and Align Stakeholders
4) Adopt Evidenced based Clinical Pathways
5) Maximize and Demonstrate Quality
6) Establish a Robust Data Collection and Dissemination Infrastructure
7) Control the Post Discharge Care and Costs
Pillar 1: Care Coordination Throughout the Episode

The Importance of Care Coordination

- Enforces best practices / standardization of pathways, workflows, and order sets
- Improves communication between providers and to the patient
- Ensures follow-up after care transitions
- Optimizes Patient Expectations and Outcomes
- Optimize the patient
Preparing Patients for the Inpatient Setting

- Patients are identified before admission
- Clinical Care Coordinator (CCC) calls patient and family (Guided Patient Services) to:
  - Set expectations for the hospital stay
  - Assess risk and level of care needs (application of RAPT)
  - Work with patient and clinical team to plan discharge before admission
  - Identify support persons and patient’s pharmacy to facilitate a smooth transition to the next phase of care


The challenge to maintain seamless consistency begins

RAFT = Risk Assessment and Predictor Tool.
Creating a Smooth Transition

- Interdisciplinary rounds are held daily on inpatient units to keep team abreast of a patient’s progress and potential barriers
- Weekly Care Coordination Conferences are held with BPCI team and other members of the interprofessional inpatient team to discuss real-time solutions to facilitate home discharges
- Comments are added to the PRI (if SAR is appropriate)
  - Expected length of stay (LOS) 5-7 days to set the expectations with both the patients and the receiving facilities

PRI = patient review instrument; SAR = subacute rehabilitation.
What Happens After Discharge?

- BPCI CCCs follow the patients for 90 days
- Readmissions for these patients are tracked
Patient Navigation

Communication Modes:
- Electronic
  - EMR: My Chart
  - EMR Light: For providers without EMR
- Telephonic
- Fax
  - For providers without EMR or limited internet connectivity

Pre-admission
- Surgeon
- Pre-Admission Testing

Hospital Inpatient
- Surgeon
- Hospital

90-Day Post-Acute Period
- Inpatient Rehab
- Skilled Nursing Facilities
- Home Health Agencies
- Surgeon Follow-Up Visits
- Outpatient Services

- Nurse Care Coordinator
  - Patient / Coach
Care Management/Coordination

Pre-hospital
- Call/meet with patient before surgery - complete preadmission assessment
- Confirm contact information
- Review preoperative office visits/PAT results
- Ensure Patient Engagement Form is completed and brought to PAT; reinforce Patient Engagement Form
- Provide preadmission education & discuss hospital processes
- Review expectations around surgical limitations, preparation for after hospital plan & discharge needs/options.
- Provide patient with contact information & encourage patient to call back if questions arise
- Home visit – high risk patients

Inpatient
- Monitor patient's progress status and readiness for discharge
- Monitor the Social Worker and Case/Care Manager to ensure that post-discharge services are in place
- Ensure the patient is on track for the expected discharge date and work with the in-hospital team if there are barriers, as needed
- Respond to escalation of change in discharge disposition from home to a facility
- Maintain communication with the surgeon, discharge planning team and other consults, as needed

Post-discharge
- Timely and ongoing contact with patients/coaches to monitor progress and identify any issues
- Calls and electronic communication to PAC providers
- Monitor SNF/IRF patient readiness for CHHA services or outpatient services and necessary follow-up appointments
- Monitor CHHA patient readiness for self-care care and any necessary follow-up appointments including outpatient PT
- Alert surgeon and specialty consult(s) when changes have occurred during the post acute period
- Follow guidance regarding patients who refuse contact and when not able to contact patients
- Plan for and establish closure at the end of the 90 day period

All communications & activities documented in Epic
Pillar 2: Preoperative Identification and Modification of Patient Risk Factors

- Perioperative surgical homes
- Risk Modification
- Risk Stratification
Perioperative Surgical Homes (POSH)

• Identify high risk patients for Shared decision making (SDM)
  • Inform High Risk Patients
• Postpone or cancel interventions based on increased risks
  • Lemon dropping
  • Cherry Picking
• Ethical implications
Bundled Payment Initiative

**POSH Readmission Score and OR of Readmission**

<table>
<thead>
<tr>
<th>POSH</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readmitted (A)</td>
<td>21</td>
<td>36</td>
<td>37</td>
<td>45</td>
<td>49</td>
<td>43</td>
<td>24</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>None (B)</td>
<td>89</td>
<td>95</td>
<td>39</td>
<td>31</td>
<td>12</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ratio = A/B</td>
<td>0.24</td>
<td>0.38</td>
<td>0.95</td>
<td>1.45</td>
<td>4.08</td>
<td>14.33</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>OR (Linear)</td>
<td>0.19</td>
<td>0.41</td>
<td>0.89</td>
<td>1.94</td>
<td>4.21</td>
<td>9.14</td>
<td>19.86</td>
<td>43.12</td>
<td>93.64</td>
</tr>
<tr>
<td>OR (Non-Linear)</td>
<td>0.24</td>
<td>0.38</td>
<td>0.95</td>
<td>1.45</td>
<td>4.08</td>
<td>14.33</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>OR (Linear, Age)</td>
<td>0.18</td>
<td>0.40</td>
<td>0.90</td>
<td>1.91</td>
<td>4.56</td>
<td>10.23</td>
<td>20.20</td>
<td>44.68</td>
<td>104.24</td>
</tr>
<tr>
<td>OR (NL, Age)</td>
<td>0.23</td>
<td>0.37</td>
<td>0.95</td>
<td>1.48</td>
<td>4.26</td>
<td>15.21</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
MJR 90D Readmission Rates before and after POSH

90D Readmission Rate

- Q3 2009 - Q2 2010: 10%
- Q3 2010 - Q2 2011: 15%
- Q3 2011 - Q1 2012: 14%
- CY 2013: 12%
- Q1 2014: 6%

Baseline Period

NYU Langone Medical Center

Hospital for Joint Diseases • Department of Orthopaedic Surgery
Bundled Payment Initiative

Interventions for Modifiable Risk Factors

- MRSA Screening and Decolonization, weight based antibiotic dosing, and use of Vancomycin and Gentamycin in high risk patients
- Hepatitis C screening
- Smoking cessation (hard stop)
- Cardiovascular Optimization and Stroke Prevention (using PT, High dose Statins, and ACE inhibitors perioperatively)
- Aggressive weight control (hard stop at a BMI of 40)
- Catastrophizing avoidance
- Drug and alcohol interventions
- Fall education prevention
- Physical deconditioning physical improvement interventions
- Diabetes control and nutritional interventions
- Screening for high risk VTED patients with testing for thrombosis risk
- Risk based stratification of VTED prophylaxis
Risk Stratification

• Identification of risk factors allows for risk stratification and the potential of increased reimbursement
  • Much like CMI (case mix index) codes for higher reimbursement
• Allows providers to direct the appropriate level of resources to maximize outcomes
  • Readmissions RAPT tool
Surgical Hip and Femur Fracture Treatment: SHFFT: New Mandatory Bundle

- Beginning in 2017???
- Surgical Procedures for hip and femur fractures
- Including: Plating and IM Rodding
- DRGs 480-482
  - Hip and femur major non arthroplasty
    - With or w/o Mcc or CC
SHFFT: Discharge Disposition Trends

Based on Medicare claims data from January 1, 2013 – March 31, 2015

<table>
<thead>
<tr>
<th>Quarter</th>
<th>IP Rehab</th>
<th>SNF</th>
<th>HHA</th>
<th>Self-Care</th>
<th>LTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 2013 - Q1 2015 (n = 175)</td>
<td>25%</td>
<td>59%</td>
<td>11%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Qtr 2 2014 (n = 27)</td>
<td>26%</td>
<td>63%</td>
<td>7%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Qtr 3 2014 (n = 25)</td>
<td>20%</td>
<td>60%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qtr 4 2014 (n = 22)</td>
<td>27%</td>
<td></td>
<td>9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qtr 1 2015 (n = 25)</td>
<td>32%</td>
<td></td>
<td>12%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SHFFT: Readmission Rates

Based on Medicare claims data from April 1, 2014 – March 31, 2015

NYU Langone Medical Center

Hospital for Joint Diseases • Department of Orthopaedic Surgery
Pillar 3: Evidenced based Clinical Pathways

• Standardization of care
  • Decreases physician specific variation
• Shares experience and expertise to lower volume providers
  • Able to benefit from institutional learning and experience
• Document value proposition of all interventions
  • Post operative labs
  • Blood management
  • Pain pathways
  • Decrease consults
  • VTE
EXAMINE CARE PATHWAYS AND ORDER SETS

• All interventions should add value
• Scrutinize “Routine” orders for value-add
• Routine Post-op blood tests in PACU
  • HCT
  • Cr/Bun
  • R/O MI
• Bone Cement
  • No need to routinely use two 40g bags
  • Most TKR’s can be done with one bag
• Strict evidence based guidelines for Antibiotic cement use
  • Hx. Of SSI
  • IDDM
  • Obesity?
Optimal Performance Measures and Multimodal Pain Management

Elimination of patient-controlled analgesia (PCA), peripheral nerve blocks, indwelling epidural and femoral nerve catheters

Use a multimodal approach to preoperative oral preemptive analgesia
- Oxycodone CR 10 mg
- Acetaminophen 1000 mg
- Celecoxib 200 mg
- Pregabalin 50 mg

Minimize narcotic use by using intraoperative periarticular injections
- Administered by surgeon
- Short-acting options – bupivacaine, morphine, ketorolac
- Long-acting option – liposomal bupivacaine
Blood Management and Transfusions: Guidelines

1. Anemia = Hemoglobin <7 gm/dL
2. Active bleeding
3. Acute cardiac ischemia
TXA TO DECREASE TRANSFUSION RATES

• Allogeneic transfusions negatively affect outcomes
  • Increase LOS
  • Increase VTE
  • Increase SSI

• Is TXA a cost effective way to reduce transfusions
  • AKA: Improve OUTCOMES
CE FOR TXA

• Cost associated with blood products decreased by 35% in the TXA cohort.

• The per-patient average cost for blood transfusions in 2012 was $198.82 and in 2013 (when accounting for the additional cost of TXA administration) it was $128.45.

• The cost of 1g/10mL TXA and 1 unit packed red blood cells (PRBC) was $25.98 and $414.43, respectively.

TXA Decreased Costs and Resulted in Improved OUTCOMES
VOLUME AND OUTCOMES

• Higher volume surgeons: decreased dislocation rate THR
• Also have institutional learning curves
• Do higher volume institutions have improved outcomes?
  • Learning Theory predicts: YES
• What is the evidence
IMPROVED OUTCOMES AT HIGH VOLUME COST CENTERS

Development of expertise is based on volume and rate of errors, and therefore higher volume is conducive to faster learning.

The learning that comes from this accumulation of errors can provide insight into how high-volume hospitals learn from experience, enabling the associated improvements seen in quality and outcomes for total joint replacements, and suggests the etiology behind improved orthopaedic outcomes seen in high volume centers.
IMPROVED OUTCOMES AT HIGH VOLUME CENTERS
Pillar 4: Identify and Align Stakeholders

• Many different providers affect outcomes and provide care
  • Nursing
  • Therapy
  • Social work
  • Anesthesia

• Align stakeholders with hospital and other providers
  • Gainsharing
    • Encouraged in CJR
Multiple Stakeholders: Interdisciplinary Team

Peri-operative process requires a multilevel interdisciplinary team approach to prepare for surgery.
Alignment

- Essential for success
- All stakeholders
  - Nursing
  - Administration
  - Social Work
  - Supply chain management
  - Post acute care providers
  - Physicians
Gainsharing is Allowed within Limits along with Limited Beneficiary Incentives

- CMS expects that participant hospitals will create financial relationships with other providers (collaborators) to coordinate quality and efficiency goals.

- Currently physician gain sharing is limited to and additional 50% above the surgeon fee currently paid in FFS.

- CMS did not address or announce any exceptions or waivers to fraud and abuse laws or regulations and noted all arrangements need to be in writing and payments to collaborators are limited to sharing reconciliation payments and internal cost saving.
Traditional Physician Alignment

- Private Practice
- “Owned” patients
- Financial arrangements to medical industry
- Owned Surgical centers
- Not aligned with hospitals
New Alignment Paradigm

- Millennials
- Educational Debt
- Administrative and compliance burden
- Patients controlled by hospitals
- Grassley Sunshine Act
- DOJ
- Decrease in physician-industry financial arrangements

- It is what is best for the patient
Contracting

- Codify alignment
- All stakeholders
- Post acute care providers
- Implant-Supply chain management
- Co-Management Agreements
Supply Chain Management (SCM)

- Professionals in logistics and purchasing
- Negotiate pricing
- Implant pricing
- Demand matching
- Reference pricing
- Limit vendors
- All equipment
Pillar 5: Maximize and Demonstrate Quality

- Establish disease or procedure specific quality and outcome metrics
  - Physician specific scores
  - Patient experience
  - Hospital level outcomes
- Minimize complications
  - Readmissions
  - VTEs
  - Surgical site infections
- Identify metrics important to payers
  - Hospital level risk stratified complication rates (RSCR)
    - NQF 1550
- Patient experience
  - HCAHPS
- Patient Reported Outcomes
  - PROs
Readmission Rates
Baseline vs. Performance

*CY 2015 includes incomplete episodes. Not all readmission claims have been processed yet as of February 2016.

Data source: Bundled Payment Medicare claims as of February 2016
Reconciliation

• Reconciliation payments only to hospitals that meet the performance threshold for reporting quality measures and other requirements.

• CMS qualifications for reconciliation payment based on the required three measures:
  • The hospital’s measure result is at or above the 30th percentile (40th percentile in PYs 4 and 5) of the national hospital measure results calculated for all Hospital Inpatient Quality Reporting program participant hospitals for each of the three measures;
  • Failure to achieve the threshold on one or more measures would result in the participant hospital not receiving a reconciliation payment, regardless of whether the actual episode payment was less than the target price for that performance period; and
  • For hospitals with insufficient volume to determine performance, CMS will consider that they are performing at the threshold level.
Use of Quality Performance in Setting the Discount Factor

• CMS believes that the CJR Model provides another mechanism to incentivize and reward hospitals that improve care. For this reason, CMS is linking the reporting of three quality measures to eligibility for a reconciliation payment.

• Hospital-level Risk-Standardized Complication Rate (RSCR) following elective THA or TKA, claims-based measure (NQF 1550)
  • 50%

• Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey measure
  • 40%

• PROs
  • 10%
CJR

Outcomes

• CMS is also proposing to add a voluntary option to track patient-reported outcome measures: the Hospital-level Performance Measure(s) of Patient-Reported Outcomes following THA or TKA (also referred to as THA/TKA patient-reported outcome-based measure or THA/TKA voluntary data).

• For hospitals that submit the voluntary data, CMS will reduce the discount used to set the target price from 2.0 percent to 1.7 percent. The effects of this voluntary reporting payment adjustment would vary depending on the proposed reconciliation payment and repayment policies for that PY.
Pillar 6: Establish a Robust Data Collection and Dissemination Infrastructure

• Accurate
• Transparent
• Actionable
  • Must be as close to real time as possible
  • Do not wait until CMS reconciliation
• Present physician specific
• Institutional specific
• Have infrastructure to operationalize data driven decisions
• Requires organizational commitment
Any patient having surgery at pilot hospital for one of the MS-DRGs is by default a part of the bundle; *It is not physician-specific*

How Does Retrospective Bundling Work?

- Claim from hospital triggers a bundle
- Patient is flagged by CMS
- Any patient having surgery at pilot hospital for one of the MS-DRGs is by default a part of the bundle;

All providers bill Medicare as normal

- CMS pays all providers as normal
- Retrospectively the sum of claims is reconciled against the target price

If it is *LOWER* than the target, the awardee will receive a check for the difference

If it is *HIGHER* than the target, the awardee has to repay CMS
PHYSICIAN RESOURCE UTILIZATION AND QUALITY ANALYSIS

Department of Orthopedic Surgery: Physician Resource Utilization and Quality Analysis - FY12 vs. FY13 (thru August)
Division of Orthopedic Surgery, Adult Reconstructive
All Payors
Physicians with >= 50 cases in FY13
FY13 Expected Cost and Quality Values based on FY12 APRDRG + Severity

Discharge Disposition Cost Only
Desired Direction

Low Quality / High Cost
Discharges Disposition of Cases Calculated Expected Cost by Type of Discharge
Low Quality / Low Cost
High Quality / Low Cost
High Quality / High Cost

NYU Langone Medical Center
Hospital for Joint Diseases • Department of Orthopaedic Surgery
Pillar 7: Control the Post Discharge Care and Costs

- Enhanced post discharge surveillance
- Establish appropriate level of care
  - RAPT risk scores\(^6\)
  - Appropriate post discharge destination
    - Avoid inpatient post discharge care
- Leverage technology to monitor patient progress
  - Web based or phone based programs
    - CHF
    - DM
    - Joint replacement
- Change provider behavior
  - Control post discharge care
- Narrow networks or ownership of Skilled Nursing Facilities
- Utilize visiting nurses
Relative Cost of 90 day Episodes of Care by Post-Acute Setting

3-Yr Baseline Period

All post-acute Medicare costs incurred within the 90d bundle are categorized by the initial post-acute setting (i.e., includes readmissions and other levels of care following the initial setting).
Patients undergoing primary THR and TKR were more likely to be readmitted if discharge disposition was to an inpatient rehab facility vs. home with health services (P=0.026). 

Ramos et al. J Arthroplasty. 2013
BPCI: Discharge disposition patterns

Based on NYULMC internal data and Medicare claims data
Fiscal Year: Sept.1 – Aug. 31

NYU Langone
MEDICAL CENTER

Hospital for Joint Diseases • Department of Orthopaedic Surgery
Q1 2015 Episode Composition
DRG 470: Primary Joint w/o MCC

Based on BPCI Medicare claims data

Target Price: $32,001
National Experience with BPCI Type 2 for LEJR

- Average episode cost decreased from 37K to 32K
- Inpatient portion of episode cost did not change
- All savings were from post discharge costs
- Utilization of Skilled Nursing Facilities (SNFs) decreased 20%
The Seven Pillars: A Review

1) Coordinate Care Throughout Episode
2) Preoperative identification and modification of patient risk factors
3) Identify and Align Stakeholders
4) Adopt Evidenced based Clinical Pathways
5) Maximize and Demonstrate Quality
6) Establish a Robust Data Collection and Dissemination Infrastructure
7) Control the Post Discharge Care and Costs
Conclusion

• Healthcare delivery and reimbursement is rapidly changing
  • Volume based to Value based
  • MACRA driven
• APM’s are the future
  • ACOs
  • PCMHs
  • Bundled Payments
• Care is evolving to Population Health
  • Including Medicaid

• Our experience in APMs and understanding of population health provides us with a competitive advantage
THANK YOU!