Improving Value with a Bundled Care Program

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Session Objectives

1. Describe the concept of bundled care as a mechanism to improve quality and contain costs
2. Review the development of the bundled care model in the total joint replacement population
3. Recognize the impact of aligned incentives in bundled programs on quality and efficiency
Conflict of Interest

We hereby certify that, to the best of our knowledge, no aspect of our current personal or professional situation might reasonably be expected to affect significantly our views on the subject on which we are presenting.

What is Bundled Care?

- An integrated model to deliver to patients, families, referring physicians and payors substantially improved quality and value for a defined set of health care services by:
  - Redesign of complex systems to embed evidence based best practices reliably;
    - everyday patient flow => better outcomes cheaper
  - Activating patients and families to be engaged in the care processes;
  - Aligning the interests of the patient, provider, payor and purchaser.
### Major Provisions of Health Reform

#### Hospital Payment Updates:
- Reduces the hospital Medicare payment update by 0.25% in April 2010, with additional decreases to follow annually.

#### Pay for Reporting:
- Quality measures for hospital care.

#### Health Insurance Exchanges:
- Requires states to establish health insurance exchanges through which individuals and small businesses can purchase private coverage.

#### Innovation Center:
- Creates Center for Medicare and Medicaid innovation to test new payment and delivery models.

#### Administrative Simplification:
- Encourages uniformity to improve health care system operations and reduce administrative costs.

#### Accountable Care Organizations (ACOs):
- Allows for the sharing of savings from improved care management with hospitals and physicians that work together to manage care.

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#### Health Insurance Reforms:
- Creates mechanisms to provide insurance coverage for individuals with pre-existing conditions and for non-Medicare eligible retirees over age 55, while prohibiting insurers from dropping coverage.

#### Graduate Medical Education:
- Redistributes unused residency slots to primary care and general surgery programs.

#### Independent Payment Advisory Board (IPAB):
- Creates independent board that will make binding recommendations on Medicare payment policy (hospital payments excluded from IPAB oversight through 2019).

#### Fraud and Abuse:
- Significant increases to fraud and abuse funding, coupled with increased financial penalties.

#### Value-Based Purchasing (VBP):
- Establishes a VBP program for hospital payments beginning in FY2013 based on 2012 performance based on measures that are part of the hospital quality reporting program.

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#### Major Provisions of Health Reform

<table>
<thead>
<tr>
<th>Year</th>
<th>provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Hospital Payment Updates, Pay for Reporting, Innovation Center, Administrative Simplification, Accountable Care Organizations (ACOs), Health Insurance Reforms, Graduate Medical Education, Independent Payment Advisory Board (IPAB), Fraud and Abuse, Value-Based Purchasing (VBP)</td>
</tr>
<tr>
<td>2011</td>
<td>Health Insurance Reforms, Independent Payment Advisory Board (IPAB), Fraud and Abuse</td>
</tr>
<tr>
<td>2012</td>
<td>Value-Based Purchasing (VBP)</td>
</tr>
<tr>
<td>2013</td>
<td>Bundled Payments, Individual Insurance Mandate, Medicaid, Hospital-Acquired Conditions (HACs), Primary Care Physician, Readmissions</td>
</tr>
<tr>
<td>2014</td>
<td>Bundled Payments, Disproportionate Share Hospitals (DSH)</td>
</tr>
<tr>
<td>2015</td>
<td>Medicaid, Health Insurance Reforms, Readmissions</td>
</tr>
</tbody>
</table>
Thoughts from Michael Porter

• To improve value we must understand the quality and cost of an episode/condition
• The unit of reimbursement needs to be aligned with the unit of value
• We must be able to measure comprehensive value of all care in an episode

CMS Bundled Care Models

• **Model One**  Retrospective Payment Models for Acute Care Hospital Inpatient Stay Only:
  - The episode of care is the acute inpatient hospital stay regardless of the assigned Medicare Severity Diagnosis-Related Group (MS-DRG);
  - Discounted MS-DRG 0% - 2% (third year is 2%);
  - Excludes DSH, IME;
  - Share savings;
  - MD Fee-for-Service (FFS) payments.
CMS Bundled Care Models

- **Model Two** Retrospective Bundled Payment Models for Hospitals, Physicians, and Post-Acute Care Providers for an Episode of Care Consisting of an Inpatient Hospital Stay followed by Post-Acute Care:
  - Selected MS-DRG;
  - Combine part A & B;
  - Discounted bundle price, discounted 2%;
  - Share savings if less than price.

CMS Bundled Care Models

- **Model Three** Retrospective Bundled Payment Models for *Post-Acute Care* Where the Bundle Does Not Include the Acute Inpatient Hospital Stay:
  - Consisting of post-acute care following an acute inpatient hospital stay, but where the initial inpatient hospital stay is not included in the episode.
CMS Bundled Care Models

- **Model Four**  Prospectively Administered Bundled Payment Models for Hospitals and Physicians for the *Acute Inpatient Hospital Stay Only*:
  - Single prospective payment of a predetermined amount for hospital and physicians services for episodes of inpatient hospitalization for selected conditions;
  - The episode anchor is an acute care hospital admission for agreed-upon MS-DRGs;
  - The episode will include Part A hospital services; and Part B professional services discounted at 3%.

The Innovation Center Seeking Applications that…

- Improve Triple Aim outcomes
- Affect broad categories of conditions
- Reach many beneficiaries and ensure protections
- Offer significant savings to Medicare
- Provide evidence of physician commitment
- Use HIT to enable quality measurement
- Demonstrate the use of measurement to improve operations
- Are designed to be scalable and replicable by similar Health systems around the country
- Involve, or could rapidly, participation by other payers; and
- Include aggressive implementation timelines
### Building a Bundle Action Steps

1. **Convene the Right Team:**
   - Legal/policy, clinical, quality improvement, data analysts, finance, marketing/communications.

2. **Define the Episode:**
   - Ensure necessary data is available (may need more than just inpatient data);
   - Perform a thorough analysis of the cost of care for the current array of services;
   - Perform a thorough analysis of the reimbursement for the current array of services;
   - Complete analysis and risk adjustment assessments;
   - Define services and set the timeframe for the episode of care to include in bundle;
   - Obtain finance support to help define new bundle reimbursement.
Building a Bundle Action Steps

3. **Develop Measures (Triple Aim):**
   - Select quality metrics to monitor for bundled episode;
   - Mandatory and voluntary metrics including cross continuum
   - Develop a quality tracking scorecard;
   - Create a continuous process improvement implementation plan.

4. **Develop Care Model:**
   - Become familiar with existing clinical guidelines and care model protocols required for bundled episodes;
   - Identify expert to lead development of care models for bundled episode;
   - Select champion to drive care process changes;
   - Detail patient engagement processes.

5. **Plan the Gain-sharing Incentives:**
   - Become familiar with legal considerations in order to achieve compliance with Stark, Anti-Kickback and antitrust guidelines;
   - Develop potential gain sharing strategies/methodologies;
   - Define eligibility criteria for provider participation in gain-sharing plan;
   - Develop a physician performance scorecard.

6. **Identify Cost Reduction Opportunities:**
   - Review of Resources, Utilization patterns;
   - Review product standardization opportunities or product substitution alternatives for bundled episodes;
   - Define the key cost metric indicators that will measure cost reduction progress for the bundled episode.

7. **Develop a Continuous Process Improvement Plan:**
   - Develop a quality and cost tracking scorecard;
   - Continuous process improvement plan to include Lean, PDSA cycles as necessary.
Baystate Medical Center

- **660** Bed Tertiary Care referral Center
- **41 K Admissions/year** (surgical vol: 28,643):
  - **1185** TJR in FY10 => expected to be > 1500)
- Magnet Hospital
- Multiple Beacon Awards
- Western Campus, Tufts University School of Medicine
- Member CoTH, 9 Residency Programs, 244 Residents
- **1200** member Medical Staff, 206 Faculty MDs
- Level 1 Trauma Center
- IHI Mentor Hospital SCIP, AMI, HF, PU, VTE
The Collaborative: Baycare Health Partners (BHP), Baystate Health (BH) & Health New England (HNE)

Why this Pilot?

- Learn how to “do it” before forced into model
- Determine readiness:
  - Provider owned Health Plan;
  - Determine scalability;
  - Determine generalizability;
  - Establish feasibility.
- Determine ability to implement in a non-employed physician environment
"Baystate Best Care"
Bundled Payment Prototype Objectives

- Reliable, more efficient patient care driven by proven clinical care processes (evidence based or consensus-based best practices)
- Predictable costs, with no overall increase in cost per episode of care across the continuum of care (reduction in spending to offset expected inflationary increases)
- Opportunity to learn and develop competencies and skill sets to succeed under a “bundled payment” paradigm; feasible and capable of replication
- Alignment of payment incentives among hospital, physicians and health plan

Baystate Best Care THR Performance Targets

<table>
<thead>
<tr>
<th>Metric</th>
<th>Current Performance</th>
<th>Top Performer</th>
<th>Prototype Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Readmitted w/in 30 Days (THR related readmission)</td>
<td>0.5%</td>
<td>0.45%</td>
<td>0%</td>
</tr>
<tr>
<td>% Discharged Home</td>
<td>68.8%</td>
<td>75-80%</td>
<td>85%</td>
</tr>
<tr>
<td>% Patients with any complication (UTI, HAPU, DVT, Post op sepsis, comp anesthesia, SSI)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>SCIP measures (% ACS- all or none)</td>
<td>97.87%</td>
<td>98.41%</td>
<td>100%</td>
</tr>
<tr>
<td>LOS (Days)</td>
<td>3.38</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>Costs - direct divisional cost per case (Hospital only)</td>
<td>$12,525</td>
<td>N/A</td>
<td>$11,418</td>
</tr>
<tr>
<td>Costs - all care included in bundled payment</td>
<td>$24,600</td>
<td>N/A</td>
<td>$24,600</td>
</tr>
<tr>
<td>Functional status score</td>
<td>Done by NEOS in office</td>
<td>Harris Hip Score, SF-12</td>
<td></td>
</tr>
<tr>
<td>Patient experience</td>
<td>unknown</td>
<td>N/A</td>
<td>NCAHPS targets “Excellent”</td>
</tr>
<tr>
<td>Mortality</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Creating the Bundle

Hospital Spending for the Care Episode

High

$10,000

Low

Shared savings: 45% Physicians
45% Hospital
10% Visiting Nurse

Payment bundled at $24,600

How to Start:
Assumptions & Principles

- No expectation of more reimbursement (bonus) for simply doing “the right thing”
- Payment only for acceptable outcomes (e.g., not paying per unit of work performed)
- Treatment of “preventable” complications without charge
What Did We Do?

- Solicited interest from non-employed orthopedic surgeons (1100 => 1500 cases per year)
- Historical pattern of focus on quality and improvement
- Convened a team
- Selected a population (THR commercial insurance product)
  - Review current care;
  - Proposed future state care (revisions to orders/pathway);
  - Model changes.
- Execution: hardwired proposed changes into work flow to assure reliable
- “Episode of Care” packaged pricing
- Performance-based reimbursement (Warranty)

Ground Rules

- Personnel: if not there then get them there
- Appropriate human support (planning consultant)
- Team was be co-led by the orthopedic surgeon and healthcare quality staff to ensure structure and forward process
- Monthly meeting document review and feedback essential to continued progress
- Message sent & reinforced that this is IMPORTANT work
- Data readily available => open sharing:
  - Key quality and core measures;
  - Hospital costs;
  - Insurance costs/payments;
  - Orthopedic surgeons cost and payment;
  - Visiting nurses cost and payments.
Chronology

- April 1, 2010: Decision to go forward from senior leadership as a learning and readiness experiment:
  - Initial selection was HF but too unpredictable;
  - Use Geisinger ProvenCare model as a foundation.
- May 1, 2010: Convene start up work team
- June 2010:
  - Review of current state => future state;
  - Current costs to predict savings/sharing.
- July – Aug 2010: Continuing discussions financial impact & care changes/finalized discussions
- Sept to October 2010: Institutional commitment, team awareness and education
- November – December 2010: Verify population case findings, measures and tracking processes
- January 2011 Go Live
Clinical Care Changes

- Coverage Increment: Prep-op History & Physical through third post op visit
- Patient selection at initial visit in Orthopedics office
- Return visit for History & Physical includes:
  - Pre-hab visit => safety and home screening;
  - Patient compact;
  - Education => going home on PM of POD 2 or AM of POD 3.
- Pre-op class and screening:
  - Review of safety issues, exercises, precautions, what to expect, pain management options;
  - Reinforcement => going home.
- Case Managers arrange for VNA Home Health 6-8 visits:
  - VNA protocol planned in conjunction with MDs and Health plan.
- Quality Measures Review and Reporting:
  - Against evidence based consensus guidelines (ie SCIP/Chest).
- Control of Rehab:
  - 7 days a week operation, 5 days for rehab.

Reliable Evidence-Based Care
Every Patient Every Time

- Pain Management: Epidural protocol
- DVT Prevention:
  - Compression boots;
  - Chemical prophylaxis.
- Cardiac Issues Prevention: continue beta blockers
- Hypotension: IV Fluid and Hypotension protocol
- SSI Prevention: AB use (timing, selection, duration, temp, clip, pre-op shower)
- UTI Prevention: Catheter DC ASAP => bladder scanner
- Bowel issues: Assessment, monitor & early intervention
Reliability “Every Patient Every Time”

- Orders are started
- Pre-op Class is booked
- Pre Anesthesia Eval is done at same time
- Post DC plan re-affirmed
- DME arrangements
- Pre-op H&P and Pre-hab Visit
- Standard work during hospitalization
- Post-op follow-up
- Data capture

Patient Care Compact

The plan of care is discussed and the compact is signed and added into the patient’s office and hospital charts.
Surgery will not take place until all problems have been resolved.

**Exclusion criteria:**
- Hx of ischemic event (cardiac/stroke)
- HX of behavioral health issues/alcohol use/withdrawal
- Uncontrolled co-morbidities (including but not limited to DKA/DEN/malignancy failure), RA or other condition noted to be high risk for operative/post-operative complications/conditions

**Initial review of patient compact/partnership agreement** (overview of expectations/activities pt needs to actively participate in)

**Medical Tune up by PCP or Pre op clinic – Approximately 3-4 weeks before surgery**
- If any of the tests demonstrate significant abnormalities/implies that based on the physical examination surgery should not proceed;
- Surgery will not take place until all problems have been resolved
- Dental visit if not done in 2 years

**Pre op teaching sessions:**
- This is a 2 hour class. A discharge planner will be at this meeting – plan will be to go home and what physical therapy services you will receive at home, blood draws and any nursing services.

**Anesthesia Consult:**
- Review your medical history with you as well as different anesthesia and pain modality options that are best for pt:
  - Epidural and/or general anesthesia, Fascia iliaca catheters and other blocks.

**Pre OP Visit**
- Dental visit if not done with 2 years
- Medical Tune up by PCP or Pre op clinic –
  - Initial review of patient compact/partnership agreement
  - Anticoagulation/medication management
  - Set up/Pt family education
  - Good night guest/EMA admit night before scheduled surgery

**Pre OP Home Visit**
- Approx 2-4 weeks before surgery
- Pt must be able to care for himself/herself and take over medications the night before surgery.
- If unable to care for himself/herself must have a family member or friend stay with you until the next morning.

**Total Hip Replacement Post Discharge Care Plan**

### Disposition Details

<table>
<thead>
<tr>
<th>Disposition</th>
<th>InterQual (DC)</th>
<th>Care Plan</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home with Home care</td>
<td>Hospital DC InterQual</td>
<td>If DC on Monday or Tuesday 3 visits/WK 1</td>
<td>If DC on Monday or Tuesday 3 visits/WK 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If DC on Wed/Thurs/Fri 2 visits WK 1</td>
<td>If DC on Monday or Tuesday 3 visits/WK 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Visit next day if DC from hospital;</td>
<td>Visit next day if DC from hospital;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Visit within 48 hours if DC from facility</td>
<td>Visit within 48 hours if DC from facility</td>
</tr>
</tbody>
</table>

**Patient Teaching:**
- Assessment of home safety
- V/S including temperature
- Assessment of incision
- S/S of infection
- S/S of DVT
- Steri strip care
- Wound care: change bandage daily with betadine

**Week # 1:**

**Main Focus:**
- Home safety
- VTE (DVT; PE)
- Prevention/monitoring
- Suture line infection S&S
- Hip precautions
- Review transfers
- Evaluate for stability and gait training
- Equipment adjustments (toilet; walker)
- Modifying heights (to avoid breaking hip precautions)
- Medication reconciliation and management including narcotics monitoring

**Week # 2:**

- Reassess and reinforce above as needed
- Introduce exercises (per N EOS brochure)

**Week # 3:**

- Getting in and out of house safely
- Reassess and reinforce above as needed
Benefits of Bundling

- Focused standardized work
- Office visits more productive:
  - Pre-op appointment with pre-hab at same time
- Patients have time to ask questions get answers
- Benefits of earlier education to ally fears, increase participation:
  - Understanding of program;
  - Engages patient and their family in their care;
  - Common goals and direction.
- Everyone has stake in the patients success

Challenges

- One small segment of the THR population (hard to remember to screen in very busy office)
- Continually communicate the pilot overview and goals
- Several are responsible for many different parts of pathway
- Pilot is labor intensive
- We have tried to take the person out of the equation but someone has to check that:
  - Eligible pts are not missed;
  - Information is accurately collected and recorded;
  - All eligible patients are progressing smoothly through the process.
## Results: Initial 25 Patients

<table>
<thead>
<tr>
<th></th>
<th>BMC Baseline</th>
<th>Bundled Care Target</th>
<th>Post Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Patients readmitted within 30 days</td>
<td>0.5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>% Patients discharged to home</td>
<td>68.8</td>
<td>80</td>
<td>88</td>
</tr>
<tr>
<td>% Patients with any hospital acquired complication (UTI, HAPU, DVT, Post-op sepsis, complication of anesthesia, SSI)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>SCIP Measures (% ACS – all or none)</td>
<td>97.5%</td>
<td>98.5</td>
<td>100</td>
</tr>
<tr>
<td>Bundled Cost</td>
<td>$24,600</td>
<td>$22,900</td>
<td></td>
</tr>
<tr>
<td>Patient Experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCAHPS* “Overall Rating”</td>
<td>6.78</td>
<td>&gt;8</td>
<td>8.62</td>
</tr>
<tr>
<td>Mortality</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
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## Lessons Learned

- Tightly aligned physician partners critical at the outset
- Data analytics important to get right first
- Difficult to determine which services to include in the bundle
- Begin planning early for development of the infrastructure to administer the bundled payment
- Manage politics through transparency and participation of physicians, hospital, health plan and visiting nurse association
Barriers & Breakthroughs

- Slow to start; tentative as to how much autonomy to redesign processes
- “Patient centered” (really?)
- Hampered by past experiences (micro-management)
- Positive feedback & freedom => support to try anything
- First hints of success => energized teams => willing to do more
- Leadership (Senior and Clinical)
  - Keep project on the front burner; measurable goals;
  - Active (How’s our work going?);
  - Be visible and supportive => walk rounds => message is crisp & consistent;
  - Model and expect desired behaviors.

Summary

1. Convene the right team
2. Define the episode
3. Develop Measures
4. Develop Model of Care
5. Plan the Gain-sharing
6. Develop Cost Reduction Opportunities
7. Develop a continuous process improvement plan
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