Bundled Payments to Align Providers and Increase Value to Patients

Stephanie Calcasola, MSN, RN-BC
Director of Quality and Medical Management
Baystate Health
Baystate Medical Center
Baystate Health Is Committed to the Development of an Integrated Regional System of Care for All Residents of Western Massachusetts

Integrated Delivery System
- Baystate Medical Center – tertiary center
- Four Community Hospitals
- Baystate VNA and Hospice
- Baystate Medical Practices (630 MDs and advanced Practitioners)
- Baycare Health Partners (1,200 MDs in our PHO)

Integrated Health Plan
- Over 180,000 members
- Only Provider Sponsored Health Plan offering commercial, Medicare Advantage and Medicaid Managed Care choices
- Medical Home Prototypes for all lines of business, including MassHealth.

Focused on Quality
- Nationally recognized for Quality Care
  - Leapfrog Top Hospital
  - Thomson-Reuters Top100
  - Top 100 Integrated Systems
  - Magnet Designation
  - NCQA level 3 PCMH
- Health New England:
  - Top 10 health plan in country
  - #1 in customer service in the country

Committed to Education
- Western Campus of Tufts University School of Medicine
- 320 residents
- Educated 1/3 of PCPs in region
- Pioneer Valley Life Science Institute
- Center for Quality of Care Research

Partner to the Community
- Volunteer community board
- $37.8M hospital community benefit
- Partners for a Healthier Community public/private partnership
- Baystate – Springfield Educational Partnership
- $2.6B economic impact

“To Improve the Health of the People in Our Communities Every Day, With Quality and Compassion”
Award Recognitions

- Beacon Award for Excellence
- Premier Award for Quality
- Magnet Recognition
- Top 15 Health Systems
- Top 100 Hospitals
- Top Hospital
- Healthgrades
- Best Hospitals
- US News Rankings
- Gold Plus
- Get with the Guidelines
- Stroke
Objectives

• Describe the concept of bundled care as a mechanism to improve quality and contain costs.

• Review the development of the bundled care model in the total joint replacement population.

• Recognize the impact of aligned incentives in bundled programs on quality and efficiency.
Triple Aim

- Optimal Care Delivery within and Across the Continuum,
- Focused on improving the Health of the Population and
- Cost of Care
- Right Care, Right Place, Right Time
Thoughts on Value from Michael E. Porter, PhD
N Engl J Med December 2010

- 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
An integrated payment model to improve quality and value for a defined set of health care services by:

- Redesign of complex systems to embed evidence based best practices reliably
- Activating patients and families to be engaged in the care processes
- Aligning the interests of the patient, provider, payor by focusing on a defined “episode” of care that is bundled together
Now is the time to transform using Bundled Payments

<table>
<thead>
<tr>
<th>Care Model</th>
<th>Care Teams use standard processes for quality, cost and compassionate care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment Model</td>
<td>Single Payment for episode of care including doctors, hospitals, post-acute care</td>
</tr>
<tr>
<td>Operating Model</td>
<td>Leadership, Clinicians, Quality Improvement, Financial Analysts, Care Management</td>
</tr>
</tbody>
</table>
Baystate’s Bundled Payment Principles

- Reliable, more efficient patient care driven by proven clinical care processes (evidence-based or consensus-based best practices);

- Payment only for acceptable outcomes (e.g., not per unit of work performed);

- Treatment of “preventable” complications without charge;

- Shared Savings principle.
The Collaborative: Physicians, Hospital, VNA and Health Plan

Orthopedic Surgeons

Baystate Health (Hospital, VNA)

Health New England (Health Plan)

The Collaborative

Care Model
Payment Model
Operating Model
Pre-Bundled Payments

- PCP Visit, Referral to Orthopedics
- Orthopedic Office Evaluation & Schedule of Surgery
- Surgery at Hospital
- Rehabilitation Care – SNF or Home
Post-Bundled Payment

Surgery at Hospital

PCP visit, Referral

Orthopedic Evaluation

“Pre-hab” home visit, safety check and therapy

Pre-op education & compact

SNF with Preferred Provider Pathway & Education

Home with Physical therapy with Preferred Pathway & Education

PCP visit, Referral
Bundled Payments for Episode of THR Care: Risk-Based Pricing

payment bundled at $24,600

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

Hospital Spending for the Care Episode

High

Low

$10,000
## Results

<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>0.45</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>% Patients discharged to home</td>
<td>48</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>% Patients with any hospital acquired complication (UTI, HAPU, DVT, Post-op sepsis, complication of anesthesia, SSI)</td>
<td>0.5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>SCIP Measures: (% ACS - all or none)</td>
<td>97.87</td>
<td>98.5</td>
<td>100</td>
</tr>
<tr>
<td>Bundled Cost</td>
<td>$24,600</td>
<td>$22,234</td>
<td></td>
</tr>
<tr>
<td>Patient Experience HCAHPS* “Overall rating”</td>
<td>6.78</td>
<td>≥8</td>
<td>8.62</td>
</tr>
<tr>
<td>Mortality</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Hospital Consumer Assessment of Healthcare Providers and Systems*
8 Steps to A Bundle

1. Convene the right team
2. Define the episode
3. Develop measures
4. Develop model of care
5. Price the bundle
6. Develop cost reduction opportunities
7. Plan the gain-sharing
8. Develop a continuous process improvement plan
1) Convene the Right Team:
   - Legal/policy, clinical, quality improvement, data analysts, finance, marketing/communications/compliance

2) Define the Episode:
   - Ensure necessary data is available (may need more than just inpatient data)
   - 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
3) Develop Measures (Triple Aim):
- Select quality metrics to monitor for bundled episode
- Mandatory and voluntary metrics including cross continuum

4) Develop Care Model:
- Identify expert(s) to care models development for bundled episode
- Select champion to drive care process changes
- Detail patient engagement processes

5) Price the Bundle
- Determine time period for baseline pricing performance
- Inclusion/Exclusion Criteria (high utilizer/outlier cases)
6) **Identify Cost Reduction Opportunities:**
- Review of Resources, Utilization patterns
- Review product standardization opportunities or product substitution
- Define the key cost metric indicators

7) **Plan the gain-sharing**
- Stark, Anti-Kickback and antitrust guidelines.
- Develop potential gain sharing strategies/methodologies
- Define eligibility criteria for provider participation

8) **Develop a Continuous Process Improvement Plan:**
- Develop a quality and cost tracking scorecard
- Lean, PDSA cycles as necessary
1) Building the Teams

**Total Joint**
- Oversight
- Clinical Improvement
- Post-Acute

**CABG**
- Oversight
- Model of Care
- Post-Acute

**Colorectal Team**

**Oncology Care Team**
1a) Building the Improvement Infrastructure
2) Defining the Episodes

Center for Medicaid & Medicare Innovation (CMMI)

Total Joint
- Total Hip & Knee Replacement (DRGs 469, 470)
- CABG (DRGs 231-236)
- Colorectal – Active July 2015 (DRGs 329, 330 & 331)
- Oncology Care Model – LOI submitted; June 19th application is due

Commercial Health New England
- Obstetrics (Planning Phase)
- Total Joint (Contract finalization)
### 3) Developing Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Description</th>
<th>Data Source</th>
<th>Time Period</th>
<th>Comparison Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>NQF</td>
<td>Discharge Anti-Lipid Treatment</td>
<td>Society of Thoracic Surgeons (STS)</td>
<td>Current available quarter</td>
<td>STS Mean</td>
</tr>
<tr>
<td>NQF</td>
<td>CABG 30-day readmission</td>
<td>Premier QA CMMI Claims</td>
<td>All patients isolated CABG</td>
<td>National Mean</td>
</tr>
<tr>
<td>SCIP</td>
<td>Antibiotic Timing</td>
<td>Premier QMR</td>
<td>Index surgical episode</td>
<td>CMS Benchmarks</td>
</tr>
<tr>
<td>Post –Acute Provider</td>
<td># of patients discharged to Preferred Providers</td>
<td>Chart Abstraction</td>
<td>Index discharge</td>
<td>Internal</td>
</tr>
</tbody>
</table>
### 3) Defining Measures

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Total Volume</th>
<th>ALOS</th>
<th># Cases SNF* (%)</th>
<th>National Benchmark</th>
<th>Well Managed Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/09-6/10</td>
<td>447</td>
<td>3.4</td>
<td>300 (67.1)</td>
<td>47.9%</td>
<td>37.5%</td>
</tr>
<tr>
<td>7/10-6/11</td>
<td>448</td>
<td>3.5</td>
<td>325 (68)</td>
<td>47.9%</td>
<td>37.5%</td>
</tr>
<tr>
<td>7/11-6/12</td>
<td>228</td>
<td>3.4</td>
<td>228 (68)</td>
<td>47.9%</td>
<td>37.5%</td>
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</table>

*Does not include LTC and Acute Rehab*
4) Developing Model of Care: CABG

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Consults</strong></td>
<td>• HV Preadmission Consult</td>
<td>• Endocrine for diagnosed</td>
<td>• Cardiac Rehab</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Anesthesia Consult (Inpatient)</td>
<td>DM patients or patients</td>
<td>• Case Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Case Management</td>
<td>unable to maintain</td>
<td>• Nutrition Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>parameters on insulin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>protocol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Activity</strong></td>
<td>• Baseline activity</td>
<td>Admit to HVCC</td>
<td>• OOB to chair</td>
<td>• OOB to chair for</td>
<td>• OOB to chair</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Encourage walking</td>
<td></td>
<td>• Transfer to M6</td>
<td>all meals</td>
<td>for all meals</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Ambulate at least 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>times per day</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Diet</strong></td>
<td>• Nothing to eat or drink after</td>
<td>NPO</td>
<td>• Clear liquids</td>
<td>• Cardiac Diet or</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>midnight the night</td>
<td></td>
<td>and advance as</td>
<td>Diabetic Cardiac</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>tolerated</td>
<td>Diet</td>
<td></td>
<td></td>
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</tbody>
</table>

Baystate Health
4) Developing Model of Care: Total Hip

Baystate Medical Center

Guidelines for Total Hip Arthroplasty (THA) that Transfer to Rehab

**Purpose:** These are the guidelines for THA progression at the rehabilitation institution. These guidelines will be modified to be patient specific to allow for a timely discharge to home.

**Goals:**
1. The rehab will view the last Subjective, Objective, Assessment, and Plan note (SOAP) from Baystate Medical Center (BMC) inpatient care, to allow for no set backs
2. The patient will have clear goals to accomplish
3. Most THA patients will be discharged home by post op day 8
4. Patients will be mobilized by the rehab nursing staff regularly

**Discharge Criteria:**
To be discharged home the patient will need to be at their prior level of function. Criteria 1 through 5 could range from (I) to MIN (A) this is dependent on their prior level of function and the assistance that the patient has organized in their home.

1. Bed Mobility
2. Transfers
3. Ambulation with appropriate AD household distances
4. Simple ADLs with use of adaptive equipment (AE) as needed
5. Negotiation of stairs in/out of home
6. (I) HEP

*If the home situation changes and family are available to provide more assistance, then an earlier discharge from rehab to home.

---

**Post Op Day 4:** (Post acute rehab day 1)
Continue with there x program: ankle pumps, quad sets, gluts sets, SAQ/LAQ. Educate patient on and initiate: isometric hip abd/add, hamstring set, heel slides.

- Patient will perform bed mobility with minimal assistance and leg lifter
- Patient will demonstrate independent sitting at edge of bed with Upper Extremity (UE) support as needed
- Patient will perform sit<>stand transfers with minimal assistance, demonstrating proper hand placement
- Patient will ambulate ≥50’ with rolling walker and minimal assistance
- Patient will ambulate to bathroom with minimal assistance throughout the day as needed
- Patient will be able to recall 3/3 total hip precautions and apply precautions to functional mobility with verbal cueing
  - Initiate step ups x 3 on stairs with (B) hand rails, minimal assistance

**Occupational Therapy:**
- Patient will perform seated ADLs on End of Bed (EOB) or a chair- with Min (A) and AE
- Patient will manage clothing pre/post voiding, perform hygiene after toileting, perform toilet transfers with min (A)
4) Post-Acute Model Redesign

Post-Acute Work Summary

• BH Strategic Post-Acute Care Committee
• Post-Acute Preferred Partnerships
• Bundle Navigator Role
• Post-Acute Care Oversight Work Group
• Transitions in Care/Cross Continuum Collaboration/Readmission Prevention
BH Strategic Post-Acute Care Committee

- Creating the overarching strategy for Post-acute care (PAC) for the BH hospitals
- Providing a single point of decision making around PAC relationships
- Assuring that the strategy is consistent with other BH approaches to PAC
Collaborative Partner Facility Profiles

- Facility demographics
- Quality performance (star rating, readmissions, falls)
- Provider model
- Services (dietitian, rehab, 24/7 access)
- Citizenship
- Patient satisfaction
- Staffing
- Professional Development (certification)
- Environment aesthetics
Bundle Navigator Role

- Provide oversight of care coordination and quality monitoring working in partnership with case management, post-acute partnerships.
- Work to develop and ensure streamlined operations, patient satisfaction and care navigation in the episodes of care bundle model.
- Knowledge around national best practice standards, transitions of care, regulatory rules and requirements for post-acute care; skilled in improvement methods and project management; proficient in data management (excel, access, database mining)
Post-Acute Oversight Team(s)

- Established relationships with key leaders in post-acute facilities
  - Leadership and clinical compliment stakeholders
- In person meetings
  - Education
  - Care pathway redesign
  - Quality outcome and expectations
  - Bundle performance
- Virtual Webinars (new)
Transitions in Care

- Risk screening on index admission
- Targeted intervention for high risk patients
- Standardized education tools
- Medication reconciliation
- Follow up phone calls
- Appointments made before discharge
- Active cross continuum teams
- Automated readmission notification EMR
- PAC Performance Improvement Teams
5) Price the Bundle

- Inpatient care
  - Blood utilization
  - Supply chain
  - OR
  - Appropriate level of care

- Post-Acute Management

- Transitions of Care
6) Determine Cost Savings

### TOTAL JOINT CMMI BUNDLE

<table>
<thead>
<tr>
<th></th>
<th>FY13</th>
<th>CY14</th>
<th>CY14 v. FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANESTHESIA</strong></td>
<td>570</td>
<td>546</td>
<td>$1</td>
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<tr>
<td><strong>BLOOD PRODUCTS</strong></td>
<td>267</td>
<td>92</td>
<td>($101)</td>
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<td><strong>CARDIOLOGY</strong></td>
<td>9</td>
<td>4</td>
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<td>$5</td>
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<td>570</td>
<td>546</td>
<td>$49</td>
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<tr>
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<td>9</td>
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<td>$0</td>
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<tr>
<td><strong>PHARMACY</strong></td>
<td>570</td>
<td>546</td>
<td>($47)</td>
</tr>
<tr>
<td><strong>STATISTICAL CODES</strong></td>
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<td>($1)</td>
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<td>570</td>
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<td>$130</td>
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<tr>
<td><strong>TOTALS</strong></td>
<td>570</td>
<td>546</td>
<td>$7</td>
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</table>

### CABG CMMI BUNDLE

<table>
<thead>
<tr>
<th></th>
<th>FY13</th>
<th>CY14</th>
<th>CY14 v. FY13</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANESTHESIA</strong></td>
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<td>138</td>
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<td><strong>BLOOD PRODUCTS</strong></td>
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<td><strong>CARDIOLOGY</strong></td>
<td>116</td>
<td>142</td>
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<td>117</td>
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<td><strong>NURSING</strong></td>
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<td>($717)</td>
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<td><strong>OUTPATIENT</strong></td>
<td>8</td>
<td>12</td>
<td>$2</td>
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<tr>
<td><strong>PHARMACY</strong></td>
<td>117</td>
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<td>$126</td>
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<td><strong>SUPPLY</strong></td>
<td>117</td>
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<td>($139)</td>
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<td><strong>TREATMENT</strong></td>
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<td>($49)</td>
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<tr>
<td><strong>TOTALS</strong></td>
<td>117</td>
<td>142</td>
<td>($1,747)</td>
</tr>
</tbody>
</table>

**Blood Product and Diagnostic testing savings offset by increases in:**
- Nursing – LOS decline offset by cost per day,
- Surgery – flat minutes offset by increase in cost per OR minute

**Significant cost savings in blood products, cardiac cath lab, and Nursing (1.9 day LOS reduction) offset by increase in OR reduction in minutes per case offset by increase in cost per minute**
7) Develop Gain Share Model

- Waiver from CMMI/CMS
- Quality measures at MD level
- Minimum number of cases – don’t want to reward non-participating MDs
- Net Payment Reconciliation Amounts (NPRA) from CMS
  - Amount saved in excess of the 2% discount
  - Next 2% kept by Awardee hospital to recoup amount withheld by CMS
    - Savings in excess of 2% contributed to gainsharing pool
- Internal Cost Savings – Hospital cost savings identified using internal cost accounting system.
- Commercial bundle shared all savings with MDs
## 7) Gain Share Results

<table>
<thead>
<tr>
<th>DRG ($000)</th>
<th>Cases (1/1/14 – 9/30/14)</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>TJR</td>
<td>378</td>
<td>$1,052</td>
</tr>
<tr>
<td>CABG</td>
<td>104</td>
<td>276</td>
</tr>
<tr>
<td><strong>Total Savings Achieved</strong></td>
<td></td>
<td><strong>1,328</strong></td>
</tr>
<tr>
<td>2% discount (Medicare’s share)</td>
<td></td>
<td>348</td>
</tr>
<tr>
<td><strong>Total NPRA Savings (check to BMC)</strong></td>
<td></td>
<td><strong>$ 980</strong></td>
</tr>
<tr>
<td>Estimate of amount owed for gainsharing</td>
<td></td>
<td>200</td>
</tr>
<tr>
<td><strong>Net Payment to BMC</strong></td>
<td></td>
<td><strong>$780</strong></td>
</tr>
</tbody>
</table>
Total Joint Replacement

- Reduction in discharge to SNF (66% vs. 61%)
- Lower LOS in SNFs from work with Preferred Providers
  - Use of Preferred Providers – 77% of patients
  - Decrease in ALOS at preferred providers (14.5 vs. 8.5)
- Lower discharges from SNF to Home w/o VNA
- Lower LOS in Acute Rehab Facilities (16 vs. 11)

CABG

- Lower LOS in SNFs
- Less intense use of VNA (lower per episode amount)
- Fewer Consults
8) Improvement and Measurement: Total Joint Bundle Dashboard
Tightly aligned physician partners critical at the outset

Start engaging teams early!

Gain sharing discussions take time

Care model determines practice. Cost reduction follows.

Post-Acute Care Component is Essential

Data analytics (concurrent and retrospective) are integral to measurement, improvement

*We must be able to measure comprehensive value of all care in an episode*

Michael E. Porter, PhD, N Engl J Med December 2010