Leveraging the Continuum to Avoid Unnecessary Utilization While Improving Quality

Leadership Summit for Hospital and Post-Acute Long Term Care Providers
May 12, 2015

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Setting the Stage / Background on NYULMC

- Comprised of four hospitals
- 1,069 licensed beds
- 39,000 patient admissions
- 670,000 outpatient visits
- Medicare beneficiaries represent 27% of NYULMC volume and 18% of revenue

- Established a Clinically-Integrated Network, LLC
- 761 voluntary physicians (38%)
- 1262 Faculty Group Practice (FGP) physicians (62%)
- >1M FGP physician visits
Visiting Nurse Service of New York (VNSNY):

Innovative home- and community-based models of care for over 120 years
Visiting Nurse Service of New York (VNSNY)

- Largest not-for-profit home- and community-based care organization in the U.S.
- Range of services across the continuum of care
- 17,000 employees
- Inter-professional teams serve the most vulnerable and needy
- 40,000 members of VNSNY CHOICE health plans
- 35,000 patients on any given day
Using Model 2 Bundled Payment as an approach to leveraging the continuum of care

**What is included in Model 2?**

- **Any services 72 hours prior to Admission**
  - Physician Visits (surgeon and other)
  - ED Visits

- **Any services during the Acute Stay**
  - Hospital
  - Surgeon
  - Anesthesiologist
  - Consulting Physicians

- **Any services during the 90-Day Post-Acute Period**
  - Inpatient Rehab
  - Skilled Nursing Facilities & LTACH
  - Home Health Agencies
  - Outpatient Services
  - Readmissions (to NYU or others)
  - Lab Services
  - Outpatient Services
  - DME
  - Part B Drugs
  - Physician Visits

- **Significant opportunity exists in the post-acute period**
- **Attribution is limited to patients that access your facility**
- **Providers take accountability for clinical risk without accepting insurance risk**
- **Allows building a care coordination infrastructure incrementally**
- **Providing information and education to providers across the spectrum, combined with the financial mechanisms to align incentives, is a powerful combination**
- **A targeted focus increases the likelihood of being successful**
Cost Drivers across an Episode of Care

Hospital Acute Care Internal Cost Savings
- Reduce LOS or # of visits
- Reduce implant, supply, or drug costs
- Reduce OR time
- Decrease unnecessary tests / pathology

Medicare Cost Savings
- Reduce facility-based post-acute care
- Reduce readmissions
- Decrease unnecessary / duplicative utilization
- Reduce SNF LOS (paid on per diem)

Quality improvements and efficiencies made under the Bundled Payment Initiative benefit all our patients, regardless of payor.
Relative Medicare Cost of Episode by Initial Post-acute Setting Total Joint Replacement

<table>
<thead>
<tr>
<th>Initial Post-acute Setting</th>
<th>Count (n=628)</th>
<th>Percent</th>
<th>90D Readmissions</th>
<th>90D Readmission Rate</th>
<th>AVG 90-Day Episode Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient Rehab</td>
<td>364</td>
<td>58%</td>
<td>55</td>
<td>15%</td>
<td>$40,095</td>
</tr>
<tr>
<td>SNF</td>
<td>102</td>
<td>16%</td>
<td>18</td>
<td>18%</td>
<td>$43,466</td>
</tr>
<tr>
<td>Home Health</td>
<td>136</td>
<td>22%</td>
<td>14</td>
<td>10%</td>
<td>$23,462</td>
</tr>
<tr>
<td>Outpatient Therapy</td>
<td>22</td>
<td>2%</td>
<td>4</td>
<td>18%</td>
<td>$27,267</td>
</tr>
</tbody>
</table>

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).

Data is based on FY 2009 (October 1st, 2008 - September 30th, 2009)
Early Lessons Learned from Implementation
Clinical Management Throughout the Pathway

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

Goal: Develop a pathway with >80% use of all elements with exclusion determined by pathway criteria, not physician preference.
Laying the Groundwork for a Successful Implementation

Pre-hospital
- Improved workflows
- Improve prediction of discharge setting
- Risk-stratification
- Standardized order sets
- Patient educational materials
- CCC outreach

Inpatient
- Interdisciplinary inpatient pathways
- Role clarification among care team
- Standardized interdisciplinary rounds
- Criteria for hospitalist coverage
- Standardized order sets
- Interdisciplinary pathway dashboard (Epic)

Post-discharge
- Improved communication / handoffs
- Post-acute pathways
- Protocols for common clinical conditions (e.g., wound management, pain, swelling)
- Routine follow-up by CCCs
- Electronic exchange of information

CCC: RN Clinical Care Coordinator
Staffing - $3 million to get ready and $1.5M/yr to manage

Care Coordination Staffing – *Dedicated to Bundled Payment*
- Clinical Care Coordinators (CCC) are the “General Manager” of the 90-day episode
  - Help answer questions and facilitate communication with providers
  - Receive regular updates on patient progress
  - Help ensure follow-up visits with surgeon and PCPs
- 5 RN FTE Clinical Care Coordinators manage 1,200 patients
  - Preoperatively 1 CCC : 20-25 patients
  - Inpatient 1 CCC : 4-6 patients
  - 90-days post-discharge 1 CCC : 50-60 patients
  - Annual staffing ratio 1 CCC : 240 patients

Program Staffing – *Support all Population Management Initiatives*
- The Network Integration and Payment Reform team consists of:
  - MD Executive Sponsor
  - RN Senior Director of Clinical Operations
  - RN Director of Clinical Care Coordination
  - Director of Program Implementation
  - Director of Payment Reform
  - Manager of Payment Reform
  - Data Analyst(s)
Reporting and Monitoring
How do we share information differently under Bundled Payment?

- To be successful in BPCI, NYULMC needed to place focused information in the hands of clinicians on a timely basis in order to facilitate care redesign.

- Since DRG coding occurs post-discharge, NYULMC had to find a way to predict BPCI patients at both the pre-admission phase after scheduling of surgery and during the inpatient stay. NYULMC leveraged Epic to identify this population of interest.

- NYULMC also built tools in Epic so that Clinical Care Coordinators (CCCs) could document care coordination activities, including readmissions to facilities outside of NYULMC. CCCs have been able to capture the majority (>85%) of readmissions that occur at outside hospitals.

- Using EMR data, a weekly dashboard was developed to regularly inform leadership and clinicians on BPCI performance, at both the condition and physician levels.
Bundled Payment Physician Scorecard

- **Physician-level reporting** allows Chairs and Chiefs to monitor their departments’ performance
- Promotes a continuous drive for improvement and results
Primary Joint - 90-day Episode Spend by Surgeon
DRG 470 Primary Joint w/o MCC

Q2 2014 DRG 470 Fracture Hip Procedures

Target Price: $33,079

RD (n=1)  SS (n=1)  RG (n=3)  AD (n=1)  NT (n=3)  SK (n=1)  ES (n=1)  TM (n=2)

Index Admit: $13,655  $13,630  $13,655  $13,655  $13,655  $13,655  $13,655  $13,655
Professional: $4,380  $5,085  $4,839  $4,712  $5,471  $5,852  $5,655  $5,291
Readmission: $8,145  $5,613  $11,228  $13,060  $3,273  $12,639  $6,634  $5,291
Readmission Professional: $4,170  $11,228  $13,060  $12,131  $12,639  $17,244  $17,244  $17,244
IP Rehab: $3,308  $4,170  $11,228  $12,131  $3,273  $5,471  $12,639  $5,291
SNF: $4,129  $4,170  $11,228  $13,060  $3,273  $5,471  $12,639  $5,291
HHA: $7,502  $4,129  $11,228  $13,060  $3,273  $5,471  $12,639  $5,291
Outpatient: $6,240  $4,129  $11,228  $13,060  $3,273  $5,471  $12,639  $5,291
DME: $1,485  $4,129  $11,228  $13,060  $3,273  $5,471  $12,639  $5,291
Primary Joint - 90-day Episode Spend by Surgeon
DRG 470 Primary Joint w/o MCC

Q2 2014  DRG 470 Non-Fracture Hip Procedures

Target Price: $33,079
Primary Joint - 90-day Episode Spend by Surgeon
DRG 470 Primary Joint w/o MCC

Q2 2014 DRG 470 Knee and Ankle Procedures

Target Price: $33,079

Ankle Procedures = 2
Post-acute partner engagement

• Quarterly Post Acute Partners Collaboration Meeting:
  • Share information on cost performance by provider
  • One focus per meeting (e.g. readmissions)
  • High level Case Review by Clinical Care Coordinators

• Monthly WebEx:
  • Pathway review
  • How to optimize care transitions

• Bi-weekly meeting with VNSNY Home Care:
  • Discuss care redesign initiatives, including IT, clinical, and financial aspects
  • Case reviews
Quarterly Reporting: Post-acute Partners

- NYULMC uses claims data to report to our post-acute partners on their own performance compared to their peers
- This type of reporting has helped maintain engagement of our partners in care redesign

### Discharges to SNF

<table>
<thead>
<tr>
<th>Setting</th>
<th>n</th>
<th>%</th>
<th>ALOS</th>
<th>Min. LOS</th>
<th>Max. LOS</th>
<th># Quarter (Q) Readmissions</th>
<th>Readmission Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNF 1</td>
<td>9</td>
<td>14%</td>
<td>19.63</td>
<td>10</td>
<td>39</td>
<td>2</td>
<td>22%</td>
</tr>
<tr>
<td>SNF 2</td>
<td>5</td>
<td>8%</td>
<td>18.40</td>
<td>8</td>
<td>35</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>SNF 3</td>
<td>4</td>
<td>6%</td>
<td>35.75</td>
<td>16</td>
<td>57</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Other (1 patient per SNF)</td>
<td>16</td>
<td>25%</td>
<td>19.50</td>
<td>1</td>
<td>28</td>
<td>7</td>
<td>44%</td>
</tr>
</tbody>
</table>

### Discharges to Home Health Agency

<table>
<thead>
<tr>
<th>Setting</th>
<th>n</th>
<th>%</th>
<th>Avg. # Visits</th>
<th>Max. # Visits</th>
<th>Min # Visits</th>
<th>ALOS</th>
<th># Readmissions</th>
<th>Readmission Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Health Agency (HHA) 1</td>
<td>63</td>
<td>66%</td>
<td>25</td>
<td>84</td>
<td>0</td>
<td>25.79</td>
<td>8</td>
<td>13%</td>
</tr>
<tr>
<td>HHA 2</td>
<td>10</td>
<td>11%</td>
<td>24</td>
<td>50</td>
<td>11</td>
<td>24.53</td>
<td>2</td>
<td>20%</td>
</tr>
</tbody>
</table>

### Episode Spend by First Discharge Setting

- Discharge to HHA: $423
- Discharge to SNF: $254

NYU Langone Medical Center
Variation in Payment by Home Care Provider

<table>
<thead>
<tr>
<th>HHA</th>
<th>Payment ($)</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHA 5</td>
<td>$2,712</td>
<td>11</td>
</tr>
<tr>
<td>HHA 3</td>
<td>$2,843</td>
<td>19</td>
</tr>
<tr>
<td>HHA 11</td>
<td>$3,210</td>
<td>11</td>
</tr>
<tr>
<td>HHA 19</td>
<td>$3,271</td>
<td>5</td>
</tr>
<tr>
<td>HHA 9</td>
<td>$3,543</td>
<td>3</td>
</tr>
<tr>
<td>HHA 15</td>
<td>$3,587</td>
<td>3</td>
</tr>
<tr>
<td>HHA 10</td>
<td>$3,934</td>
<td>7</td>
</tr>
<tr>
<td>HHA 18</td>
<td>$4,240</td>
<td>5</td>
</tr>
<tr>
<td>HHA 2</td>
<td>$4,401</td>
<td>69</td>
</tr>
<tr>
<td>HHA 1</td>
<td>$5,045</td>
<td>350</td>
</tr>
<tr>
<td>Other</td>
<td>$3,209</td>
<td>49</td>
</tr>
</tbody>
</table>

HHA: Home Health Agency
Q2 2013 – Q2 2014; Primary Joint Replacement of the Lower Extremity
Post-acute communication

• NYULMC’s *Health Information Exchange*

• Allows care team to review clinical results/notes of other facilities and physicians
• “EMR Light” allows for enhanced communication with post-acute care providers through the use of an electronic transitional care communication tool. The tool consists of:

  • **Transfer Document**: Completed by a NYULMC Clinical Care Coordinator upon hospital discharge and made available to the post-acute provider through EMR Light. Includes information such as demographics, type of surgery, care pathway, most recent clinical status, and Clinical Care Coordinator contact information.

  • **Follow-up Form**: Sent from the post-acute provider to NYULMC as a patient progress report. Includes information such as post-acute length of stay, changes in clinical condition, physician / nurse practitioner evaluations, and medication changes.

  • **Continuity of Care Document**: The post-acute provider can also access the patient’s Continuity of Care Document that is generated by NYULMC’s electronic health record. The document is an electronic patient summary containing a set of standardized clinical elements that are most relevant during care transitions. These elements include allergies, medications, problem list, procedures, and results.
NYULMC and VNSNY Coordination of Care

Communication Across the Continuum

<table>
<thead>
<tr>
<th>Pre-Admission</th>
<th>During the Hospital Stay</th>
<th>After Hospital Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>• NYULMC Clinical Care Coordinator notifies VNSNY onsite liaisons of any “red flag” cases expected to go home with VNSNY home care services</td>
<td>• Once home discharge is confirmed, VNSNY RN assesses patient at bedside and discuss home care plan with patient and family</td>
<td>• Home visits initiated within 24 hours</td>
</tr>
<tr>
<td>• VNSNY team notes case and provides any info (if patient known to agency) back to CCC</td>
<td>• Ongoing communication between hospital discharge planning team and Clinical Care Coordinator as needed</td>
<td>• Dedicated VNSNY Clinical Liaison remains in contact with NYULMC CCC throughout home care episode as needed to address any clinical issues or questions regarding home care plan of care</td>
</tr>
<tr>
<td></td>
<td>• NYULMC Transfer Document sent to VNSNY upon hospital discharge and incorporated into the VNSNY patient chart</td>
<td>• Weekly clinical updates (extracted from VNSNY clinical visit notes) sent to NYULMC via an electronic Health Information Exchange</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• For HIGH RISK cardiac cases, weekly case conferences held between the VNSNY Clinical team and the NYULMC CCCs</td>
</tr>
</tbody>
</table>
Leveraging Technology to Enhance Communication

The VNSNY-NYU Health Information Exchange
Case Conferences for High Risk Patients

- Initiated after bundled payment outcomes data showed a high readmission rate for patients recovering from cardiac valve surgery

- NYULMC Clinical Care Coordinators proactively identify “high risk for readmission” in the cardiac bundled population and notify the VNSNY clinical team

- Each week the team gathers and analyzes the latest clinical information on each patient, ahead of the case conference call

- On the call, the team discusses “yellow” and “red” flag trends in the clinical data, necessary follow up appointments, psychosocial issues impacting care, and other barriers to patient progress

- Action steps are identified by the team and carried out on subsequent home visits and care coordination phone calls
Staff Feedback

• “VNSNY and the clinical information they provide act as my eyes and ears, telling me how the patient is doing at home.”

• “The automatic weekly updates make our communication more meaningful. We can review this information in advance of our weekly calls, so that we can use our call time more efficiently, talking about what changes we feel need to be made in the patient’s plan of care.”

• “The data exchange helps to make the VNSNY home care RN and the NYULMC Clinical Care Coordinator a unified team, both working with the patient to address the key issues and address the patient’s goals.”
VNSNY Quality and Outcomes Reporting

Clinical and Financial Data Shared with NYULMC to Help Guide Best Practice

Key Clinical Indicators Report

- Stratifies NYULMC→VNSNY bundled payment patient population by demographics, rehospitalization risk score and clinical characteristics

- Reports on key process and utilization measures:
  - Timeliness of start of care.
  - Average length of home care episode
  - Average number of visits by discipline

- Reports on key quality measures:
  - Rehospitalization rate
  - ED usage rate
  - Average improvement in selected functional domains

Home Care Episode Cost Analysis

- Retrospective review of home care episodic payments for each DRG patient group

- Compare clinical profile (HHRG score) and actual service utilization

- Identify opportunities for improved cost-efficiency while maintaining clinical quality
Results to Date
BPCI: Length of Stay Trends

Average Length of Stay per Episode Family

- **Baseline**
  - CV Surgery: 10.19
  - Joint Replacement: 5.13
  - Spinal Fusion: 4.77

- **CY 2013**
  - CV Surgery: 9.00
  - Joint Replacement: 4.54
  - Spinal Fusion: 3.52

- **CY 2014**
  - CV Surgery: 7.95
  - Joint Replacement: 4.91
  - Spinal Fusion: 3.47
BPCI: Discharge Disposition Patterns

Value-based Management
...Changing care delivery while improving quality
BPCI: 90-day Readmission Rate Trends

Readmission Rate Trends per Episode Family

### BPCI Reconciliation Running Total

<table>
<thead>
<tr>
<th></th>
<th>Total Joint</th>
<th>Spine</th>
<th>CV Surgery</th>
<th>Total Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Volume</td>
<td>Savings</td>
<td>Volume</td>
<td>Savings</td>
</tr>
<tr>
<td>Q4 2013</td>
<td>190</td>
<td>$757,302</td>
<td>50</td>
<td>($217,519)</td>
</tr>
<tr>
<td>Q1 2014</td>
<td>209</td>
<td>$1,203,109</td>
<td>36</td>
<td>($441,542)</td>
</tr>
<tr>
<td>Q2 2014</td>
<td>197</td>
<td>$406,112</td>
<td>52</td>
<td>$103,007</td>
</tr>
<tr>
<td>Q3 2014</td>
<td>205</td>
<td>$1,090,449</td>
<td>41</td>
<td>($292,221)</td>
</tr>
<tr>
<td><strong>Total: Q4 2013 - Q3 2014</strong></td>
<td><strong>801</strong></td>
<td><strong>$3,456,971</strong></td>
<td><strong>179</strong></td>
<td><strong>($848,276)</strong></td>
</tr>
</tbody>
</table>
• 89% of patients were satisfied or very satisfied with their CCC:
  - Primary Joint: 88%
  - Spine: 83%
  - Cardiac Valve: 97%

• 81% of patients said the program always met their expectations
  - Primary Joint: 81%
  - Spine: 73%
  - Cardiac Valve: 87%

Response rate: 58%
Closing Thoughts: Bundled Payment Successes

• The demonstration project has created dynamic and influential changes in the delivery of care

• The hospital, physicians, and post-acute partners are better coordinating care transitions and are communicating important clinical information about shared patients

• Providing information and education to providers across the spectrum, combined with the financial mechanisms to align incentives, is a powerful combination

• Physician engagement is key to identifying opportunities and leading change

• Strategic design and implementation of IT infrastructure is a foundation for success
Closing Thoughts: Challenges with using data to analyze performance

• Data fluctuations and changing target prices prevent accurate prediction of performance against target prices

• Without predictability of savings at both the initiative and physician-levels, it is difficult to maintain clinician engagement and will hinder expansion to additional bundles

• When calculating ROI, it is essential to account for cost of implementation and revenue losses due to care redesign
Closing Thoughts: Hospital and Post-Acute Provider Challenges and Lessons Learned

**Patient Identification**

**Challenge:** Identifying patients of the NYULMC bundle when referred from a SNF or IRF not consistently done at time of referral to VNSNY.

**Solution:** Communication workflow established between post-acute facility discharge planners and VNSNY intake liaisons.

**Identifying the appropriate post-acute pathway**

**Challenge:** Need to accurately predict which patients would need enhanced vs. standard home care services while avoiding unnecessary costs.

**Solution:** NYULMC employed validated tool for predicting appropriate discharge setting and tool for identifying level of risk for rehospitalization; home care team adjusts services as needed based on ongoing clinical assessments in home.

**Communication**

**Challenge:** Relying on phone calls for communication between VNSNY and NYULMC providers not always efficient.

**Solution:** Exploring options for alternative communication methods like secure email and texting.

**Cost and Quality**

**Challenge:** Ensuring that workflows and processes are constantly monitored for relevance and effectiveness.

**Solution:** Regular check-ins with NYULMC & VNSNY clinical teams as well as senior leadership to review program and identify areas for improved collaboration.
Questions?

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Donna.Lichti@vnsny.org