Bundled Episode Payment & Gainsharing Demonstration

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AHRQ Grantees Meeting
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Project Objectives

• Test feasibility/scalability of bundled payment episodes in multi-payer environment
• Develop 10 bundled episode definitions
• Recruit 20 physician/facilities teams for health plan contracting in multiple payer settings
• Research evaluation – study of the implementation of hip and knee episodes (RAND)
• Disseminate key lessons and best practices
Bundled Payment

What?

• A fixed, single price for an episode of care (acute or chronic)
• Bundle covers all medical care (physician, inpatient, tests, devices) for defined episode
• Includes treatment of complications /readmissions for “warranty”
• Entity receiving bundle responsible for distribution payment to participating providers

Why?

• Improve quality, care coordination
• Reduce costs through incentive alignment
• Administrative adjustments ahead of payer mandates
Results: Episodes Defined

- Total knee replacement
- Partial knee replacement
- Total hip replacement
- Knee arthroscopy, with meniscectomy
- Diagnostic cardiac catheterization
- Angioplasty with stents
- Maternity – hospital only
- Maternity – including prenatal
- Hysterectomy
- Cervical spinal fusion
### Episode Definition: Knee Replacement

#### Distribution of contractual allowed amounts - PPO population

<table>
<thead>
<tr>
<th></th>
<th>pre-surgery</th>
<th>inpatient stay</th>
<th>recovery</th>
<th>follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9%</td>
<td>74%</td>
<td>6%</td>
<td>11%</td>
</tr>
</tbody>
</table>

- **Includes pre-admit workup charges**
- **Includes all physician, hospital charges, implant device**
- **Includes physician, hospital charges for complications and readmissions**
- Excludes surgeon evaluation
- **Average Length of Stay = 3.9 Days**
- **Excludes skilled nursing, in/outpatient rehab, outpatient RX, durable medical equipment, home health**

1Source: Ingenix national claims data – 7,632 complete episodes

**WARRANTY PERIOD**

90 Days
# Total Knee Replacement Episode Definition

## Patient Qualification

For inclusion in the pilot, patient must be:

- Covered (as primary plan) by a participating employer and health plan on date of surgery
- Undergoing surgery provided by an orthopedic surgeon contracting to provide services under the pilot for the specific health plan
- Being admitted to a hospital contracting to provide services under the pilot for the specific health plan
- Over age 18 and under age 65
- Presenting for index procedure with an ASA rating of <3 (APR-DRG SOI level of 1 or 2)

Patients are excluded from the pilot when:

- Transferred at any time during initial hospital stay
- Primary coverage with participating employer and health plan ends at any time during the episode
- Clinical history demonstrates clinical condition of:
  - Active Cancer
  - HIV/AIDS
  - ESRD
- BMI is 40 or greater

## Index Procedure

<table>
<thead>
<tr>
<th>Index Procedure Code:</th>
<th>DRG:</th>
<th>Diagnosis Exclusions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>This procedure must exist to trigger the episode.</td>
<td>Episode must map to one of these DRGs.</td>
<td>Diagnosis (any position) must NOT equal one of the following:</td>
</tr>
<tr>
<td>CPT:</td>
<td>MS DRG 470</td>
<td>714.0x—Rheumatoid Arthritis</td>
</tr>
<tr>
<td>- 27447 — Arthroplasty, knee condyle and plateau, medical and lateral compartments</td>
<td>Major Joint Replacement or Reattachment of Lower Extremity without MCC</td>
<td>736.89—Other acquired deformities, lower limb</td>
</tr>
<tr>
<td>ICD-9 Px:</td>
<td>AND</td>
<td>170.7—Malignant neoplasm of long bones of lower limb</td>
</tr>
<tr>
<td>- 81.54 — Total Knee replacement</td>
<td>APR DRG SOI of 1 or 2</td>
<td>171.3—Malignant neoplasm of soft tissue, lower limb, hip</td>
</tr>
<tr>
<td></td>
<td></td>
<td>198.5—Secondary malignant neoplasm of bone, marrow</td>
</tr>
<tr>
<td></td>
<td></td>
<td>822, 823, 827, 828, 836, 891—Fractures, dislocations and open wounds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>928—Crushing injury</td>
</tr>
</tbody>
</table>
Results: Contract and Cases

• “Building blocks” completed for bundled payment contracts
  • Development of model contracts
  • Data analysis to inform pricing of bundles
  • Legal and regulatory analysis and guidance

• Contracting partners for bundled payment initiative
  • Recruited initial cohort of 6 health plans and 8 hospitals and hospital systems
  • Contracts completed for 3 health plans and 2 hospitals (and 1 ASC with 4 facilities) for knee and/or hip replacement episodes
  • 25 cases completed at hospitals and 100+ cases at ASC facilities
  • Partners continuing to conduct cases under contracts
Results: Evaluation & Dissemination

• **Evaluation (RAND)**
  - Implementation evaluation near complete
  - Two manuscripts in progress for submission to peer reviewed journals

• **Dissemination activities (IHA)**
  - Some complete, others on track for grant end date
  - Issue briefs – orthopedics, maternity care, care redesign
  - Array of resources (to be) posted on IHA website
    - Episode development and definitions
    - Model contracts forms
    - White paper on technical issues
  - Presentation to California and national policy audiences
    - Policy roundtable
What were the most important findings from your study?
Findings: Ambitious Goals for Bundled Payment Across California Unrealized

- In spite of enthusiasm and collaborative process, the project experienced significant delays

- In the absence of proven models, most aspects of technical design met with administrative complexity

- Significant good will and administrative expertise was overtaken by “real world” challenges
  - Only 3 of 6 health plans signed contracts
  - Only 2 of 8 hospitals (plus 1 ASC) signed contracts
  - Volume of surgery was extremely low in hospitals
Findings: Critical Implementation Challenges Caused Delays and Fallout

- Defining the episode bundle
- Designing a new contracting model
- Needing to overlay on existing payment systems and insurance benefit designs
- Addressing the “tug of war” around risk sharing and price
- Meeting the concerns of regulators
- Low patient volumes and competing demands
Question 2

What are the findings most important implications for researchers (including methodological implications where relevant)?
Implications for Researchers

• Small numbers create challenges, especially for quantitative analysis – could change with implementation of Bundled Payments for Care Improvement (BPCI)

• Quantitative data difficult to obtain
  • Many competing priorities for providers, plans
  • Requires negotiation of HIPAA and data use agreements

• Formative evaluation may be more realistic than outcome evaluation for new payment model initiatives
Question 3

Are there other recent studies that are directly relevant to your work? How do your findings relate to those studies?
Findings of Other Studies Show Potential Impact on Costs

- RAND systematic review commissioned by AHRQ documented the impact of 19 bundled payment programs
  - Examined 58 studies of which 4 were review articles
- All programs showed reductions in health spending – on the order of 10% or less
- Reductions in LOS between 5-15%
- Strength of the evidence rated “low”
However, Findings on Quality and Outcomes Are Not Impressive

- Inconsistent and generally small effects on quality
  - Inconsistent in both direction and magnitude
  - Within and across studies

- No significant declines in poor outcomes (despite improvement in process measures)
  - Post-operative mortality, readmissions, complications

- Even Geisinger ProvenCare™ failed to show any statistically significant differences across 19 health outcomes (Casale et al., 2007)
Methodological Issues Limit Confidence in Findings

- Mostly observational studies
- Self-selected sites, single sites, non-generalizable settings
- Goals not specified as quantifiable metrics
- Small numbers – lack of power to detect differences
- Poor methods for controlling potential bias, confounds
- Insufficient descriptions of the intervention design, evaluation methods, and results
- Inadequate evidence to identify the influence of contextual factors on implementation or outcomes
Our Findings Consistent with Recent Studies

- Findings consistent with evaluation of PROMETHEUS Payment® (Hussey, Ridgely & Rosenthal, 2011)

- Findings consistent with abundant gray literature on implementation: promising but DIFFICULT

- Lack of quantitative analysis significantly limits comparison with most studies
In addition to researchers, who are the most important potential audiences for your findings, and what are the key implications of your findings for them?
Important Non-Research Audiences

- Policymakers - state, federal
- Payers - health plans, CMS
- Providers – hospitals, physicians
- Regulators– state, federal
Key Implications for Policymakers

• For policymakers
  • Simulation studies (using claims data) have documented the potential of bundled payment
  • To date, however, there is much more conceptual discussion than actual experience
  • Not enough information yet to determine what designs and approaches may be effective
  • Requirements for “scaling” nationally are unknown
  • Low patient/procedure volume constraints could be improved with greater Medicare involvement in bundled payment
Key Implications for Delivery and Practice

• For practitioners…
  • No need to reinvent the wheel
    • Episode definitions (IHA, PROMETHEUS Payment® and work by CMMI) are in the public domain
    • Automated claims software (vendors such as McKesson, MedAssets, TriZetto, others) is available for purchase
    • Sample contracts (IHA) can provide a template
  • However, implementation in the “real world” is slow and non-linear – plan accordingly
  • Retrospective payment, at least during initial phase, can ease implementation
Contact Information

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