Bundled Payments for Care Improvement Joint Replacement

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- CMS supports the development and testing of innovative health care payment and service delivery models
- Bundled Payments for Care Improvement is one category with 4 models

CMS Bundled Payment - ***Models***

Payment of Bundle	Acute Care Hospital Stay Only	Acute Care Hospital Stay plus Post-Acute Care	Post-Acute Care Only	Chronic Care
"Retrospective" (Traditional FFS payment with reconciliation against a predetermined target price after the episode is complete)	Model #1	Model #2	Model #3	Model #7
"Prospective" (Single prospective payment for an episode in lieu of traditional FFS payment)	Model #4	Model #5	Model #6	Model #8

= Current Program Initiative = Future Program Initiative

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CMS Bundled Payment - ***Models***

- **Model #1 :** **Retrospective** payment models for the **acute inpatient hospital stay** only
- **Model #2 :** **Retrospective** bundled payment models for **hospitals, physicians, and post-acute providers** for an episode of care consisting of an inpatient hospital stay followed by post-acute care
- **Model #3 :** **Retrospective** bundled payment models for **post-acute** care where the bundle does not include the acute inpatient hospital stay
- **Model #4 :** **Prospectively** administered bundled payment models for **hospitals and physicians** for the **acute inpatient hospital stay** only

All models are expected to include care redesign and enhancements such as:
-Re-engineered care pathways (using evidenced-based medicine
-Standardized care (using checklists)
-Care coordination

All models may also include opportunities for gain-sharing among providers
All models must provide Medicare with a discount on Medicare FFS expenditures

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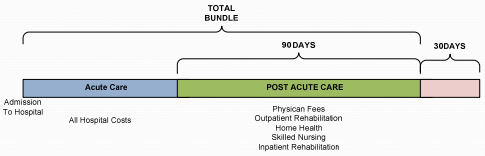
BPCI Model 2

- 2012 CMS initiated a bundled payment development program in which organizations could propose bundled payment initiatives
- January 2013 CMS opened a phase 1 no risk analysis period. CMS provided clinical episode definitions and claims data to be used for analysis
- Phase 2 is a three year agreement with CMS. Participants can enter in two waves, August 1 or November 1 2013
- Another phase 2 opportunity was available for 2015
- HHS can implement bundle payments without congressional approval as part of ACA

BPCI Model 2

- Model 2 is a retrospective reconciliation of claims paid for specific clinical episodes(DRG) by CMS compared to a target price
- The target price is for claims paid from hospital admission through 90 days after discharge. This includes claims paid to physicians and post acute care providers
- During the contract period reconciliation will occur on a quarterly basis



High-Level Findings

- Substantial random variation in average episode price
  - Results in both gains and losses
  - Variation declines with episode volume
- Winsorization reduces year-to-year price variation
  - Impact is greatest for low volume providers
  - Impact is greatest for chronic versus procedural episodes
- Selecting high degree of protection (75%/5%) reduces risk but also limits potential gain under BPCI

Risk Tracks

- Hospitals must choose one of three risk tracks:

	A	B	C
Upper Percentile	99th	95th	75th
Lower Percentile	1st	5th	5th

- Risk corridor thresholds set at the national level;
- Hospital are responsible for 20 percent of payments above the high-end threshold for a given risk track.

Models 2 & 3 Target Price Calculation

- Calculate performance period target prices by applying a national MS-DRG-specific trend factor to the baseline price and then applying the CMS discount percentage
  - Calculate trend factor as mean national performance period episode case cost divided by mean national baseline period episode case cost
  - Quarterly changes in the trend factor currently uncapped
- Target prices include direct adjustments for key payment policies like Hospital Readmission Reduction program

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Models 2 & 3 Financial Risk

- If NPRA > 0, CMS will issue payment to the Awardee
- If NPRA < 0, CMS will send a demand letter to the Awardee
- Perform initial reconciliation with 5 months claims run out
- Perform 3 quarterly true-ups to account for net change to NPRA

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Downside Risk Example

Awardee Convener XXXX-001		
	NPRA	
	w/Downside Risk	w/o Downside Risk
Episode Initiator XXXX-002	-$150,000	$0
Episode Initiator XXXX-003	$250,000	$250,000
Total	**$100,000**	**$250,000**

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Key Elements of Agreement

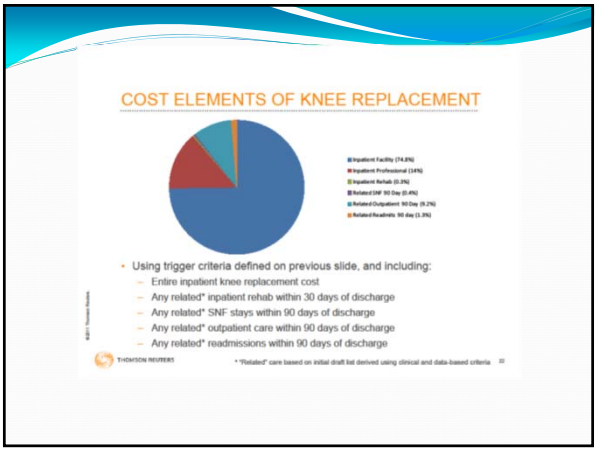
- 3 year agreement starting January 1,2014. WDH can opt out at any time with 60 days notice
- Includes only Medicare beneficiaries with Medicare part A&B for specific DRG's
- Waivers such as removing the 3 day stay requirement for SNF and gain sharing are included to assist in the care redesign and shared risk
- Waiver for beneficiary incentives
- Stroke and joint replacement

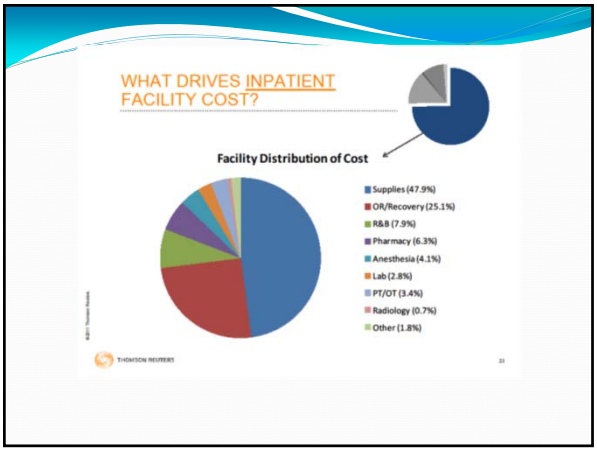
How We Got There

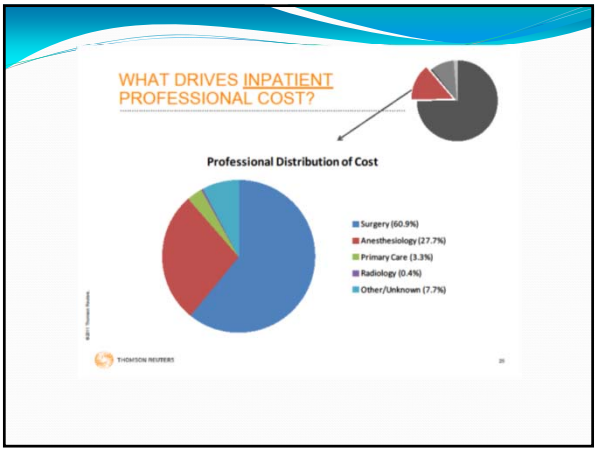
- 2012 participated in simulation bundle payment project Thompson Reuters/VHA
  - Commercial claims data
  - Cohort of 9 hospitals in US
  - Began care redesign efforts for joint replacement
- 2013 phase 1 participation in CMS BPIC
  - 3 years claims data for analysis
  - Joined Compass Group
    - Brandeis/Estes Park
    - Horty/Springer Law Firm
    - Cohort of 9 hospitals
- Signed agreement with CMS to enter phase 2 January 1,2014
  - Continue work with Compass Project

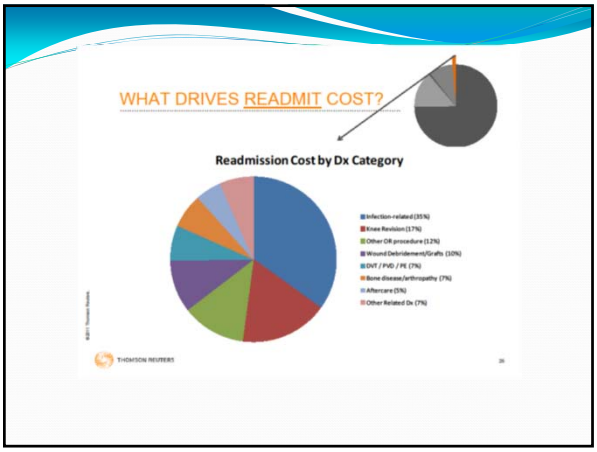
Final Simulation Bundle
Commercial Data Thompson Reuters/VHA

- Included Care:
  - –Pre-admission care within 30 days of admission for specific procedures with related diagnoses
  - –Entire inpatient knee replacement admission
  - –Inpatient rehabilitation with related Dx within 30 days of discharge
  - –SNF with related Dx within 30 days of discharge
  - –Outpatient care within 90 days with related Dx for specific categories (PT/OT, radiology, lab, major procedures, home health, DME, and physician visits)
  - –Readmissions within 30 days with related DRG
  - –Readmissions within 90 days for related DRG w/review*
  - –Revisions within 180 days



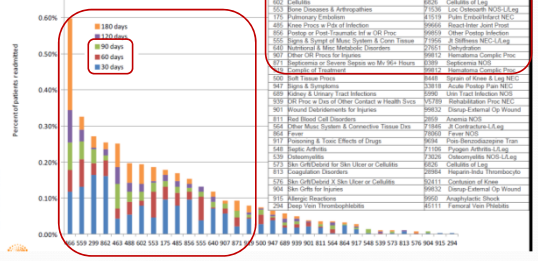


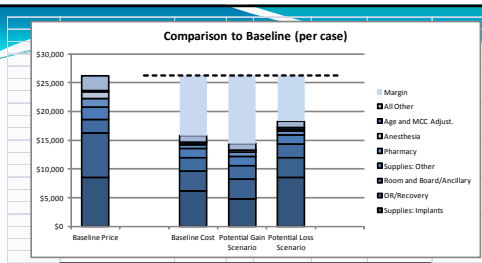




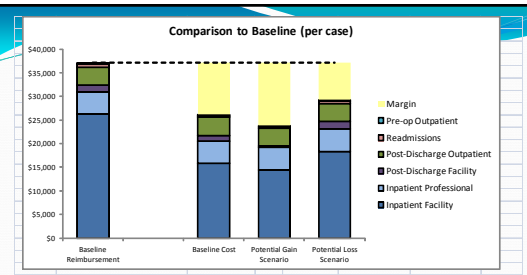
READMISSIONS: RELATED

- DRGs currently ID'd as "related":





Comparison to Baseline Chart Data	Baseline Price		Baseline Cost	Potential Gain Scenario	Potential Loss Scenario
Supplies: Implants	$8,564		$6,139	$4,800	$8,500
OR/Recovery	$7,690		$3,418	$3,418	$3,418
Room and Board/Ancillary	$2,331		$2,394	$2,394	$2,394
Supplies: Other	$2,208		$1,605	$1,605	$1,605
Pharmacy	$1,409		$669	$669	$669
Anesthesia	$1,252		$332	$332	$332
All Other	$2,566		$1,134	$1,134	$1,134
Age and MCC Adjust.	$206		$111	$50	$253
Total	$26,225		$15,801	$14,401	$18,304
Margin			**$10,424**	**$11,824**	**$7,921**
Total Volume Margin			**$635,840**	**$721,270**	**$483,173**



Comparison to Baseline Chart Data	Baseline Reimbursement		Baseline Cost	Potential Gain Scenario	Potential Loss Scenario
Inpatient Facility	$26,225		$15,801	$14,401	$18,304
Inpatient Professional	$4,787		$4,787	$4,777	$4,806
Post-Discharge Facility	$1,381		$1,148	$313	$1,609
Post-Discharge Outpatient	$3,812		$3,812	$3,812	$3,812
Readmissions	$573		$283	$166	$422
Pre-op Outpatient	$336		$336	$336	$336
Total	**$37,114**		**$26,167**	**$23,805**	**$29,290**
Margin			**$10,947**	**$13,309**	**$7,824**
Total Volume Margin			**$667,753**	**$811,852**	**$477,294**

Medicare Claims Data
Joint Replacement Lower Extremity

- DRG 470
- Post acute care accounts for 50% of claims cost
- Readmissions 4% of mean cost per case
- SNF and HH 33% of total mean cost per case

Care Redesign

- Preop screen
- Prehab
- Patient communication of post discharge expectations
- Home safety evaluation
- Criteria based discharge
- Home aid provided as needed to get home health/OP vs SNF/rehab
- Med Minder provided as needed
- Transportation to MD appointments
- Pathway/protocol developed for SNF and HH
- Follow up by care coordinator with PAC providers and WHP care managers, access to Nexgen
- Bundled payment data collection form that follows patient throughout episode
- Common communication document for all PAC provider
- DRG 470/469 includes hip fractures that require implants

Beneficiary Incentives

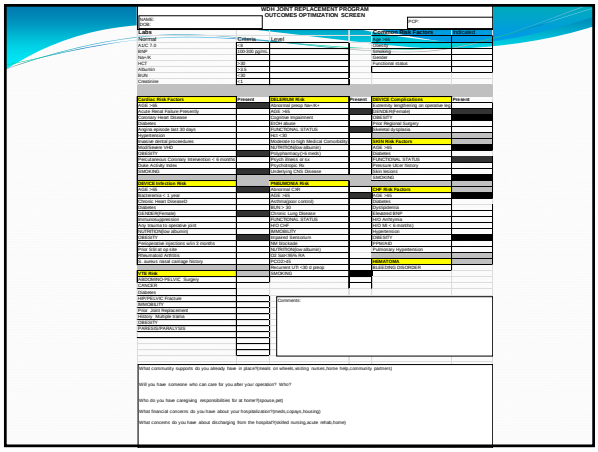
Incentive item or service	Dollar value of individual item or service ($)	Criteria for beneficiary eligibility to receive the incentive(s)	How will you measure whether beneficiaries have met the criteria?	Clinical goal of the incentive item or service
Home Safety Evaluation	$200	Patients living in own home. Evaluation will be provided during the hospital stay prior to discharge.	Chart audit	Improved patient safety; reduce readmissions; transition to lower acuity post acute care provider.
Transportation	$ 50	Patients with no other transportation options. Patients with driving restriction.	Chart audit	Improved compliance with follow-up care with physicians and rehab providers.
Med Minder	$40 – 60 / month (for up to 90 days post acute discharge)	Moderate to severe cognitive impairment. History of poor medication compliance. Multiple medications and no caregiver.	Medication compliance data from unit. Number of patients eligible for med minder who actually received/used.	Improved medication compliance.
Homemaker / companion	$20-25 / hour (range from 2 – 24 hours – based upon patient need)	Homebound or safety risk patients needing mobility assists. Medically and functionally stable.	Case managers / rehab personnel to determine safety functionality prior to discharge.	Remove socio-economic barriers to receiving care at home.
Health club membership	$ 60 for 60 days	All bundled patients.	n/a	Promote lifelong healthy lifestyles.

Standardization

- Implants to one vendor 85%
  - Negotiated volume discount
- Utilization of nerve blocks
  - Reduce fall risk to get up day of surgery
- No foley
  - Encourage ambulation
  - Infection control
- DVT prophylaxis
  - Improved utilization of mechanical
  - All surgeons using same pharmacological approach
- Blood management program
  - TXA
- Collection of functional outcome measures
  - Oxford knee and hip scores
  - TUG
- Preop chlorhexidine preperation
  - Home night before and day of surgery
  - Operative site at hospital
- 3M skin and nasal antiseptic

DVT Pharmacological

- The default pathway will be ASA 325mg po bid starting the day after surgery.
- Patients who are at higher risk of thromboembolic event will get Xarelto 10 mg po bid starting the day after surgery. This includes prior history of DVT within 5 years, any history of PE, known hyper coagulable state, malignancy, people with afib who are not on coumadin.
- Patients who are already on Plavix and ASA will resume ASA the day after surgery and Plavix at the time of discharge.
- Patients who are on chronic Coumadin therapy will start Lovenox the day after surgery and continue until Coumadin is therapeutic.
- Hip fractures will also default to ASA due to fall risk unless any of the other criteria above exist.

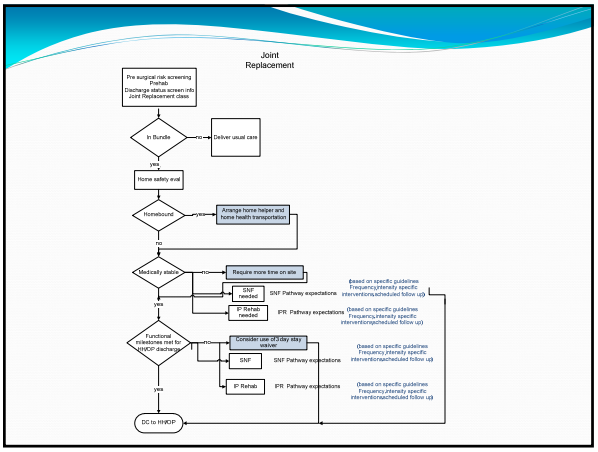

WDH JOINT REPLACEMENT PROGRAM
OUTCOMES OPTIMIZATION SCREEN

Prehabilitation

- "Prehab"
- MD order for PT prehab evaluation
- Examination of the patient's level of pain, ROM, strength, balance, and mobility
- Individualized program for Prehab based on findings

Communication

- Established dedicated contacts with PAC providers
- Key providers – physician champions
- Stroke and JR Program Managers
- Acute care staff
- WHP Care Managers
- Bundle Experience Form
- Transition of Care Form



SNF Rehab
Hip and Knee Replacement
Bundled Payment Project

Clinical Expectations

1. Maximum individual therapy per day include group as tolerated
2. ROM and ADL progress from hospital discharge baseline
3. lymphedema assessment/treatment
4. balance program
5. emphasis on closed chain exercises
6. self stretch/exercise log
7. edema control
8. BERG score at discharge
9. pain control for therapy

Process Expectations

1. Weekly follow up in progress to HH or OP therapy, expect one week in SNF except
   a. medically unstable
2. HH or OP therapy scheduled within 48 hours of discharge
3. Utilization of bundled payment project patient incentives in cooperation with WDH care coordinators
   a. homemaker help
   b. med minder
   c. transportation
   d. Works Rx
4. DC summary/bundled patient forms completed and sent at discharge including Oxford and TUG

Pain control for therapy- instruct to take pain meds 45 min-1 hour prior to therapy session

* WDH rehab to schedule a TJR therapy seminar

Home Health
Hip and Knee Replacement
Bundled Payment Project

Clinical Expectations

1. Daily therapy
2. ROM and ADL progress from hospital discharge baseline
3. lymphedema assessment/treatment
4. balance program
5. emphasis on closed chain exercises
6. self stretch/exercise log
7. edema control
8. BERG score at discharge
9. pain control for therapy

Process Expectations

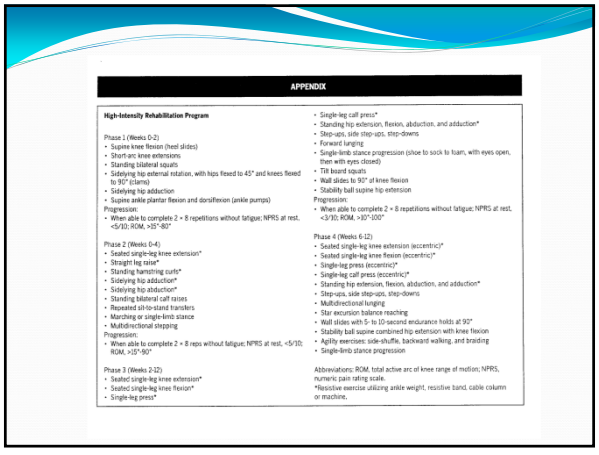
1. weekly follow up in progress to OP therapy or discharge, expect one week in HH for majority of patients
2. OP therapy scheduled within 48 hours of discharge
3. DC summary/ bundled patient forms completed and sent at discharge including Oxford and TUG
4. DC with no OP therapy
   a. Knee flexion = 120 deg, ext = -5. Hip functional range within precautions
   b. ADL independence
   c. Ambulation at community level , > 150 ft no assistive devices
   d. Confidence in patient compliance with home exercises
   e. Offer Works RX program

Pain control for therapy- instruct to take pain meds 45 min-1 hour prior to therapy session

* WDH rehab to schedule a TJR therapy seminar

Early high-intensity rehabilitation following total knee arthroplasty improves outcomes

***Conclusion**: "A HI program leads to better short- and long-term strength and functional performance outcomes compared to a lower intensity rehabilitation program. The HI program did not impair knee ROM and did not result in any musculoskeletal injuries in this small group of patients"*



APPENDIX

High-Intensity Rehabilitation Program

Phase 1 (Weeks 0-2)
- Supine knee flexion (heel slides)
- Short-arc knee extensions
- Standing bilateral squats
- Sidelying hip external rotation, with hips flexed to 45° and knees flexed to 90° (clams)
- Sidelying hip adduction
- Supine ankle plantar flexion and dorsiflexion (ankle pumps)

Progression:
- When able to complete 2 × 8 repetitions without fatigue; NPRS at rest, <5/10; ROM, >35°-80°

Phase 2 (Weeks 0-4)
- Seated single-leg knee extension*
- Straight leg raise*
- Standing hamstring curls*
- Sidelying hip adduction*
- Sidelying hip abduction*
- Standing bilateral calf raises
- Repeated sit-to-stand transfers
- Marching or single-limb stance
- Multidirectional stepping

Progression:
- When able to complete 2 × 8 reps without fatigue; NPRS at rest, <5/10; ROM, >35°-90°

Phase 3 (Weeks 2-12)
- Seated single-leg knee extension*
- Seated single-leg knee flexion*
- Single-leg press*
- Single-leg calf press*
- Standing hip extension, flexion, abduction, and adduction*
- Step-ups, side step-ups, step-downs
- Forward lunging
- Single-limb stance progression (shoe to sock to foam, with eyes open, then with eyes closed)
- Tilt board squats
- Wall slides to 90° of knee flexion
- Stability ball supine hip extension

Progression:
- When able to complete 2 × 8 repetitions without fatigue; NPRS at rest, <3/10; ROM, >35°-100°

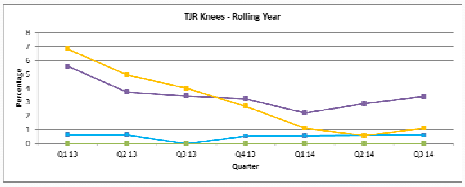
Phase 4 (Weeks 6-12)
- Seated single-leg knee extension (eccentric)*
- Seated single-leg knee flexion (eccentric)*
- Single-leg press (eccentric)*
- Single-leg calf press (eccentric)*
- Standing hip extension, flexion, abduction, and adduction*
- Step-ups, side step-ups, step-downs
- Multidirectional lunging
- Star excursion balance reaching
- Wall slides with 5- to 10-second endurance holds at 90°
- Stability ball supine combined hip extension with knee flexion
- Agility exercises: side-shuffle, backward walking, and braiding
- Single-limb stance progression

Abbreviations: ROM, total active arc of knee range of motion; NPRS, numeric pain rating scale.
*Resistive exercise utilizing: ankle weight, resistive band, cable column or machine.

Metrics

- Cancellations of surgery 1 week or less prior to surgery date due to medical status
- Surgical site infections within 90 days
- DVT/PE within 90 days
- Unplanned readmissions within 90 days
- Reoperations within 90 days due to infection
- Reoperations within 90 days any reason
- Length of stay
- Mechanical complications within 90 days
- Functional outcomes

Key Metrics



Bundled Payment Episode Experience Form

Patient Name: _____ DOB: _____

Criteria	Baseline	Acute	Inpt or Rehab	Home Health	Outpt	Home
Facility Name		WDH				
Admission Date	N/A					
Discharge Date	N/A					
Admitting Dx						
# Co-Morbidities (questions to this admission/discharge)						
Discharge Destination	N/A					
*Cognitive status/ Communication deficits // Frequency						
**Ambulatory status / Assistive devices						
***ADL status						
Diet / fluid restriction						
++ Home support situation						
^^ Frequency of Home Support						

SCORE KEY

*Cognitive Status – 1 = Alert & Oriented 2 = Depressed 3 = Forgetful / Confusion 4 = Anxious
Frequency of Cognitive Issues – A = Constant B = Several Times per day C = Weekly D = In new situations
**Ambulatory Status - 1= Independent/ Modified Independent 2 = With minimal physical assist 3 = Maximum physical assist
*** ADL Status- 1 = Independent / Modified Independent 2= Minimal assist 3=Maximum assist
++ Home Support Situation 1 = Lives Alone 2 = Lives with other person 3 = Lives in Assisted Living / Nursing Home
^^ Frequency of Home Support 1 = Around the clock 2 = Regular during day 3 = Regular during night 4 = Occasional 5 = No assistance available

Co-Morbidities: ☐ Diabetes ☐ HTN ☐ COPD ☐ CHF ☐ AFib ☐ CAD ☐ Acute Renal Failure ☐ Stroke ☐ Bleeding Disorder ☐ High Cholesterol ☐ Cancer of _____

Incentive or services offered:
☐ Home Safety Evaluation ☐ Transportation ☐ Medication Minder ☐ Homemaker / Companion ☐ WORKS membership

Bundle Episode Experience Forms

- Second quarter 2014
- Total of 49 collected on JR patients
- Patients with 2 or 3 comorbities represent 52% of JR patients
- 90% cognitive score of 1(alert & oriented)
- 60% lives with another person
- 28% have round the clock frequency of home support

Reconciliation Results

- October 2014 first official claims reconciliation by CMS
- Reduced SNF LOS by 50%
- Net reconciliation positive $s
- Highest reconciliation amount out of cohort group
- A lot of discussion on calculation of target pricing by CMS
- Large participants had significant losses and CMS altered NPRA to upside only for 2014

Keys To Success CMS Bundle Payments Joint Replacement

- Establish organizational leader that will implement program and culture of accountability for patients throughout the episode
- Engage key providers and share data
- Need cost accounting system for internal cost savings measures
- Engage post acute care facilities early and be honest about financial implications
- Develop communication network across all care providers – including data transfer infrastructure
- Use data and best practices to develop comprehensive care redesign – continuous process
- Develop data collection and interpretation system
- Use established joint replacement committee and PI for bundle program

Next Steps

- Connect claims data with clinical data – population health
- Correlate patient satisfaction/outcomes/cost (triple aim)
- Continue shift of patient discharged directly to home and OP therapy
- Refine utilization and construct validity of preop screening
- Improve functional outcomes data collection efforts
- Explore utilization of AM-PAC and LACE tools for discharge planning
- Analyze gainsharing opportunity
- Exploring more episodes in addition to joint replacement and stroke
- Determine effect on MSSP and ACO
- Expect bundle payments to become payment system in future