

Cost Analysis of Bundled Care And Short-Stay Arthroplasty

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Disclosures



I (and/or my co-authors) have something to disclose.

Detailed disclosure information is available via:

“My Academy” app;



Printed Final Program; or

AAOS Orthopaedic Disclosure Program on the AAOS website at <http://www.aos.org/disclosure>

None relevant to this study

Objectives

- Compare revenue earned throughout a 2-year commitment to BPCI
 - Washington University in St. Louis/Barnes Jewish Hospital
- Analyze trends in CMS reimbursements/target pricing
- Quantify both direct and holistic costs related to implementing an efficient BPCI model

Bundled Care: Facts/Assumptions

- Single payment for entire episode of care based upon DRG
- Progressive financial rewards/penalties for high/low performers
 - None in year 1, up to 20% in year 5
- Each institution assigned target rate by CMS
- Adjusted quarterly based on previous performance
- Costs and revenue tallied quarterly and collected by the institution as the Net Payment Reconciliation Amount (NPRA)

Bundled Care: Facts/Assumptions

- Streamlining the patient process is the key to excelling in this model
- Short stay, minimization of non-essential post-acute care, eliminating re-admission = higher quality care, and higher financial incentive

Bundled Care: The WashU Experience

- Initial returns excellent
 - Related to already streamlined care pathways
- Target price continually decreased over the course of the program
- NPRA decreased commensurate with decrease in target prices
- Reimbursement remained modestly positive at conclusion of the program

Bundled Care: Direct Costs

- Strategy to reduce post-acute care and minimize readmissions
 - Implementation of outpatient case managers (OCMs)
 - 3 OCM's and 1 manager= 4 FTE's
- Project Oversight—40 hours quarterly for project maintenance
- Consulting and guidance: TAVHealth
- Changes to inpatient therapy (combined with SDRP program)

Bundled Care: Holistic costs

- BPCI Operations Committee
 - 28 members
 - 1.5hr meeting monthly
- BPCI Coordination Meeting: 3 Members
 - 1 hour 2x a month at first, now 1 hr 1x a month

Bundled Care: Holistic costs

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Bundled Care: Quarterly Maintenance costs

- Data Reconciliation: 1 BJH mgr and 1 BJC data leader—several hours
- Meeting prep: 1-2 hours per committee
 - Plus 0.5-1hr meeting quarterly
- Quality Sub-Committee: 13 members
- Finance Sub-Committee: 14 members
- ~40 hours quarterly for project lead

Bundled Care: Holistic costs

Costs Associated with BPCI-Classic			
Category of Effort	Subcategory	Description	BJH
Purchases	Software	Software to facilitate care navigation	\$222/patient
Hires/Incremental Staff	Care Navigation	Incremental Care Navigator positions (team members have some outside responsibility)	16 hrs/patient
Meeting Time	Nursing, Therapy, Home Health, Pharmacy, PI, Managers	BJH formed up a team to work on care elements including clinical pathway design, post-acute care transitions, multi-disciplinary care. Effort not attributed entirely to BPCI/CJR, as quality of care continued to improve	1 hr/patient
Meeting Time	System Resources	Finance, Managed Care, Quality all contributed to moving this work forward (includes dashboarding, reconciliation process, management of the program)	0.98 hrs/pt
Management	Project Management/ Performance Improvement	Project management required to run an initiative; time dedicated varied during the life of the program	0.9 hrs/patient
Revenue Associated with BPCI-Classic/CJR			
			BJH
		Average Annual NPRA/patient (over life of the program)	\$ 690

Bundled Care: What did we conclude?

- NRPA diminished as the program progressed
- Costly system to implement and maintain
- Major complicating factor: Removal of TKA from IPO
 - Major shifts in volume throughout the program
- Institution shifting cases to a new hospital to further streamline care
- Uncertainty: both financially and related to outpatient TJA

Limitations

- Experience of a single academic institution
- Holistic costs are best estimates
 - Impacted by changes in volume, changes in surgical location and TKA removal from IPO
- Financial Data not readily released

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