

Characteristics of Hospitals and Physician Groups Participating in Bundled Payments for Care Improvement-Advanced Outpatient Spine Episodes

Grace Y. Ng¹, Erkuan Wang¹, Erin Huang¹, Austin S. Kilaru², Jingsan Zhu¹, Joshua M. Liao³, Said Ibrahim⁴, Deborah S. Cousins¹, Torrey Shirk¹, Amol S. Navathe^{1,5}

¹Department of Medical Ethics and Health Policy, University of Pennsylvania; ²Department of Emergency Medicine, University of Pennsylvania; ³Department of Medicine, University of Washington; ⁴Northwell Health; ⁵Corporal Michael J. Crescenzo VA Medical Center



Introduction

- Outpatient bundled payments were first introduced in 2018 with the Bundled Payments for Care Improvement-Advanced program
- Back and Neck Except Spinal Fusion (BNESF) was one of the three outpatient episodes
- No prior independent peer-reviewed studies comparing the hospitals and physician group practices (PGPs) that participated vs. did not participate in outpatient BPCI-A

Methods

- Study population: hospitals (n=62) and PGPs (n=229) that participated in outpatient BPCI-A for BNESF at any point during Model Years 1-2, and non-participating hospitals (n=1,769) and PGPs (n=5,551)
- Compared number of episodes, hospital and market characteristics, and physician characteristics. All data was from the year 2013
- Wilcoxon rank-sum tests used to test differences in continuous variables and chi-squared tests used to test differences in categorical variables

	BPCI-A Participating Hospitals (n = 62)	Non-Participating Hospitals (n = 1,769)	P-value
No. of qualifying episodes, mean (SD)	52.8 (38.2)	32.3 (41.8)	<0.001
Ownership, No. (%)			0.21
Nonprofit	47 (75.8)	1,170 (66.1)	
For profit	9 (14.5)	426 (24.1)	
Government	6 (9.7)	173 (9.8)	
Location, No. (%)			0.005
Urban	62 (100.0)	1,567 (88.6)	
Rural	0 (0.0)	202 (11.4)	
Hospital size, No. (%)			0.08
Large (≥400 beds)	21 (33.9)	387 (21.9)	
Medium (100-399 beds)	33 (53.2)	1,068 (60.4)	
Small (<100 beds)	8 (12.9)	314 (17.8)	
Affiliated with health system, No. (%)			0.18
Yes	49 (79.0)	1,261 (71.3)	
No	13 (21.0)	508 (28.7)	
Disproportionate Share Hospital payments, median (IQR)	\$3,955,342 (\$6,574,804)	\$2,152,959 (\$5,526,919)	0.039
% of volume from low-income zip codes, mean (SD)	15.3 (13.2)	21.6 (20.3)	0.044

Hospitals and physician groups that enroll in outpatient spine episodes tend to have higher baseline volumes of outpatient spine surgery.

	BPCI-A Participating PGPs (n = 229)	Non-Participating PGPs (n = 5,551)	P-value
No. of qualifying episodes, mean (SD)	13.9 (13.0)	10.2 (13.2)	<0.001
% of line items delivered at a place of service type, mean (SD)			
Inpatient hospital	20.6 (14.5)	31.3 (20.1)	<0.001
Hospital outpatient department	6.0 (10.3)	16.6 (21.2)	<0.001
Ambulatory surgery center	1.1 (2.3)	1.0 (4.3)	<0.001
No. of unique beneficiaries billed by provider, mean (SD)	416.9 (206.9)	303.4 (243.7)	<0.001

Discussion

- Compared to non-participating hospitals and physician groups, BPCI-A participants had higher volume of outpatient BNESF episodes
- Participating hospitals were more likely to be urban and to have a lower percentage of volume from low-income zip codes
- Low rate of enrollment in BPCI-A overall
- Limitations: small sample size

Policy Implications

- Consider how to increase enrollment and improve retention in outpatient bundles programs, particularly among hospitals and physician groups with lower outpatient procedural volume