Lower 1-Year PROMs Completion Rates and Higher Need for More Resource-Intensive Follow-Up Methods in Inpatient vs. Outpatient Medicare THA Patients: Addressing Barriers For Upcoming CMS new Policy on PROMs Collection

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INTRODUCTION:
The Centers for Medicare and Medicaid Services has mandated the collection and reporting of patient-reported outcome measures (PROMs) in total joint arthroplasty, with the goal of collecting meaningful pre- and postoperative data directly from patients to enhance clinical care, shared decision-making, and quality measurement. However, reported PROMs collection response rates are suboptimal, with studies reporting loss to follow-up rates of 20% or more despite using both passive electronic methods and active outreach by staff. Evidence is lacking on effective methods to optimize PROM collection specifically among the inpatient Medicare population targeted by the policy. This study aimed to 1) evaluate differences in processes and rates of successful PROMs collection between inpatient and outpatient Medicare total hip arthroplasty (THA) patients, and 2) identify patient-specific factors associated with the need for active follow-up to obtain 1-year postoperative PROMs.

METHODS: A Retrospective analysis of prospective collected data on 5,480 primary elective THA patients ≥65 years old from 2016-2021 was performed at a single institution. Patients were stratified by Medicare inpatient (length of stay [LOS] >1), Medicare outpatient (LOS ≤1) . Modes of 1-year postoperative PROMs collection included passive electronic methods (email, text, patient portal) and active methods (phone calls, personalized emails/texts/letters). Response rates and factors associated with active follow-up were compared between groups using multivariable regression.

RESULTS: Overall, a lower proportion of inpatient Medicare THA patients completed 1-year PROMs compared to outpatients (75% [2,108/2,809] vs. 85% [3,372/3,983]). Passive follow-up measures were successful for 45.1% (950/2,108) of inpatients compared to 52.2% (1,760/3,372) of outpatients (p<0.001). In contrast, active follow-up was required for 54.9% (1,158/2,108) of inpatients versus 47.8% (1,612/3,372) of outpatients (p<0.001). On adjusted analysis, inpatient status (odds ratio [OR] 0.84, 95% confidence interval [CI] 0.74-0.94, p=0.003), older age (OR 1.20 per interquartile range [IQR] increase, 95% CI 1.11-1.29, p<0.001), non-White race (OR 1.89, 95% CI 1.52-2.34, p<0.001), lower education level (OR 0.66 per IQR increase, 95% CI 0.60-0.72, p<0.001), and worse baseline PROMs independently predicted the need for active 1-year follow-up. (Table 1)

DISCUSSION AND CONCLUSION: Inpatient Medicare THA patients have substantially lower 1-year PROM completion rates and require more resource-intensive active surveillance methods compared to their outpatient counterparts. Optimizing collection in this population is essential for accurate quality measurement under the new CMS policy. Results suggest that tailored protocols addressing barriers around sociodemographics, health literacy, and patient engagement may be needed. Innovative strategies leveraging targeted outreach materials, patient navigators, community health workers, virtual visits, and coordinated interventions on social determinants of health could help improve follow-up among harder-to-reach at-risk populations.

Table 1. Multivariable logistic regression analysis of predictors requiring active follow up

Predictors	Active Follow-up Estimate [95%CI]	P-value
Age (IQR Increase)	1.30 (1.17 − 1.45)	<0.001
Sex (Male v Female)	1.04 (0.93 − 1.17)	0.479
BMI (IQR Increase)	0.95 (0.88 − 1.03)	0.223
Race (Non-white v White)	1.89 (1.52 − 2.33)	<0.001
Education (IQR Increase)	0.66 (0.60 − 0.72)	<0.001
Smoking (Quit v Never)	0.87 (0.77 − 0.98)	0.018
Smoking (Current v Never)	1.32 (1.02 − 1.72)	0.036
CCI (IQR Increase)	0.96 (0.90 − 1.02)	0.222
ADI (IQR Increase)	1.00 (0.91 − 1.11)	0.939
Outpatient v Inpatient	0.84 (0.74 − 0.94)	0.003
P+PS+MCS+ v P-PS-MCS-	0.59 (0.50 − 0.70)	<0.001
P+PS+MCS- v P-PS-MCS-	0.70 (0.58 − 0.84)	<0.001
P+PS-MCS+ v P-PS-MCS-	0.64 (0.49 − 0.84)	0.001
P+PS-MCS- v P-PS-MCS-	0.76 (0.58 − 0.99)	0.039
P-PS+MCS+ v P-PS-MCS-	0.60 (0.45 − 0.80)	<0.001
P-PS+MCS- v P-PS-MCS-	0.83 (0.64 − 1.08)	0.164
P-PS-MCS+ v P-PS-MCS-	0.71 (0.59 − 0.87)	0.001
Observations	5136	
R²	0.069	