Prior Authorization Does Not Reduce Costs in Patients Undergoing Primary THA

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INTRODUCTION: Prior authorization (PA) has been implemented by payors in an effort to reduce unnecessary healthcare utilization. However, obtaining PA has been shown to increase the administrative burden and delay access to care. To our knowledge, the financial burden and cost-effectiveness of PA in total hip arthroplasty (THA) is yet to be determined. The purpose of this prospective study was to quantify the costs associated with obtaining PA in primary THA patients.

METHODS: A consecutive series of 3,922 patients undergoing primary THA with commercial insurance from a single payer from 2020-2022 at our institution were included. Data on PA status, the number of office visits, and total claims cost of nonoperative treatment received in the year prior to THA and from the initial PA request date to date of surgery was prospectively collected and analyzed.

RESULTS: Of the study population, 2,840 (72.4%) patients required PA. There was no difference in the mean claims cost in the year prior to THA ($316 ± 234 in PA vs. $318 ± 273 in the no PA cohort, p=0.760) and from initial request date to date of surgery ($318 ± 249 in PA vs. $302 ± 245 in no PA cohort) between the two groups (p=0.430). However, patients that required PA were found to have significantly lower preoperative HOOS-JR scores (48.1 ± 15.5 vs. 49.7 ± 14.7, p=0.021) and experienced a significantly longer duration from initial surgery request date to date of THA (40.4 days ± 37.0 vs. 38.7 days ± 36.0, p=0.023).

DISCUSSION AND CONCLUSION:

In the present study, obtaining PA was found to be an ineffective cost-saving measure in patients undergoing primary THA. Additionally, THA patients who required PA not only had lower preoperative functional outcome scores, but also experienced significantly longer wait times prior to obtaining surgery.

Table 1. Clinical characteristics of commercially insured patients that do or do not require prior authorization to undergo THA (n=3,922)

	Prior Authorization Required (n=2,840)	No Prior Authorization (n=1,082)	p-value
Age (Years)	59.6 ± 8.27	66.0 ± 9.32	**<0.001**
Sex			**<0.001**
Female	1324 (46.6%)	574 (53.0%)	
Male	1516 (53.4%)	508 (47.0%)	
Race			**<0.001**
White	2141 (75.4%)	882 (81.5%)	
Black	265 (9.33%)	65 (6.01%)	
Other	434 (15.3%)	135 (12.5%)	
Ethnicity			0.059
Non-Hispanic	2818 (99.2%)	1080 (99.8%)	
Hispanic	22 (0.77%)	2 (0.18%)	
BMI (kg/m²)	30.1 ± 5.60	29.4 ± 5.51	**0.003**
CCI	2.77 ± 1.26	3.69 ± 1.40	**<0.001**
ASA	2.23 ± 0.59	2.33 ± 0.60	**<0.001**
Inpatient vs. Outpatient Surgery			**<0.001**
Inpatient	1649 (58.1%)	429 (39.7%)	
Outpatient	1191 (41.9%)	653 (60.4%)	
Laterality			0.615
Left	1337 (47.1%)	499 (46.1%)	
Right	1503 (52.9%)	583 (53.9%)	
Year			**<0.001**
2020	1046 (36.8%)	262 (24.2%)	
2021	1204 (42.4%)	434 (40.1%)	
2022	590 (20.8%)	386 (35.7%)	
Preop HOOS-JR	48.1 ± 15.5	49.7 ± 14.7	**0.021**
Preop SF-12 PCS	32.7 ± 8.05	33.4 ± 8.25	0.103
Postop HOOS-JR	75.8 ± 19.3	74.8 ± 19.2	0.504
Postop SF-12 PCS	42.5 ± 8.31	42.0 ± 7.67	0.388

Values given as mean ± SD or N (%).
BMI, body mass index; *CCI*, Age-adjusted Charlson comorbidity index; *ASA*, American Society of Anesthesiologists physical status classification; *HOOS-JR*, Hip Dysfunction and Osteoarthritis Outcome Score for Joint Replacement; *SF-12*, 12-item Short Form Health Survey; *PCS*, physical component summary.

Table 2. Surgery authorization type and administrative requirements prior to THA (n=3,922)

	Prior Authorization Required (n=2,840)	No Prior Authorization (n=1,082)	p-value
Authorization Type			**<0.001**
Inpatient	1678 (59.1%)	439 (40.6%)	
Outpatient	1162 (40.9%)	643 (59.4%)	
Denied Inpatient, Approved Outpatient			0.429
No	2740 (96.5%)	1050 (97.0%)	
Yes	100 (3.52%)	32 (2.96%)	
Denied on Initial Request			**<0.001**
No	2798 (98.5%)	1082 (100%)	
Yes	42 (1.48%)	0 (0.00%)	
Peer-to-Peer Required			**0.006**
No	2823 (99.4%)	1082 (100%)	
Yes	17 (0.60%)	0 (0.00%)	
Addendum Required			**<0.001**
No	2572 (90.6%)	1082 (100%)	
Yes	268 (9.44%)	0 (0.00%)	
Any Denial			**0.010**
No	2704 (95.2%)	1050 (97.0%)	
Yes	136 (4.79%)	32 (2.96%)	
Days from Surgery Request to THA	40.4 ± 37.0	38.7 ± 36.0	**0.023**

Values given as mean ± SD or N (%).

Table 3. Utilization of care and nonoperative treatment in the year prior to THA with associated costs (n=3,922)

	Prior Authorization Required (n=2,840)	No Prior Authorization (n=1,082)	p-value
Steroid Injection	397 (14.0%)	159 (14.7%)	0.566
Number of Encounters	1.30 ± 0.59	1.21 ± 0.43	0.267
Steroid Cost ($)	209 ± 146	191 ± 121	0.177
MRI	8 (0.28%)	2 (0.18%)	0.591
Number of Encounters	1.00 ± 0.00	1.00 ± 0.00	
Cost ($)	336 ± 229	273 ± 35.3	0.793
Office Visits	2135 (75.2%)	836 (77.3%)	0.173
Number of Encounters	1.54 ± 0.84	1.54 ± 0.81	0.562
Cost ($)	221 ± 121	223 ± 176	0.532
PT	66 (2.32%)	22 (2.03%)	0.583
Number of Encounters	4.58 ± 4.52	4.00 ± 4.97	0.548
Cost ($)	403 ± 438	391 ± 442	0.954
X-Ray	1812 (68.8%)	744 (68.8%)	**0.004**
Number of Encounters	1.16 ± 0.41	1.19 ± 0.43	0.238
Cost ($)	50.3 ± 28.1	50.9 ± 25.7	0.553
Total Cost in Year Prior ($)	316 ± 234	318 ± 273	0.760
Cost Between Surgery Request to THA ($)	318 ± 249	302 ± 245	0.430

Values given as mean ± SD or N (%).
MRI, Magnetic Resonance Imaging; *PT*, Physical Therapy.