

Patient Satisfaction and Outcomes Following Outpatient Joint Arthroplasty in Academic Medical Centers.

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INTRODUCTION:

Total joint arthroplasty (TJA), including total knee arthroplasty (TKA), total hip arthroplasty (THA), and unicondylar knee arthroplasty (UKA), are among the most common surgeries performed annually in the United States (U.S.). Recent literature predicts that more than half of joint arthroplasties in the U.S. will be performed on an outpatient basis by 2026, defined as discharge on the same day of surgery. This shift may be attributed to concerns with staffing, time constraints, and financial pressures, as joint arthroplasty procedures are increasingly done in ambulatory surgery centers (ASCs). While there is a difference in operations between ASCs and academic medical centers (AMCs), to the best of our knowledge, no study has been conducted evaluating patient satisfaction and outcomes in patients undergoing outpatient joint arthroplasty procedures in an AMC. In this study, we evaluated patients' desires to repeat their procedures, to be discharged on same day, patient reported outcomes (PROMs), time to discharge, and patient readmission rates in patients undergoing outpatient joint arthroplasty in AMCs.

METHODS:

We prospectively evaluated 281 patients who previously underwent TJA or UKA from May 2018-December 2020 at two urban AMCs. Patients were called and consented to evaluate their desire to repeat their surgery (satisfaction), same day discharge, and readmission, if applicable. Patients were subsequently surveyed using hip disability and osteoarthritis outcome score (HOOS JR) and knee injury and osteoarthritis outcome score (KOOS JR) if they underwent THA or TKA/UKA, respectively. The HOOS JR and KOOS JR surveys evaluate various PROMs including pain, stiffness, and difficulty when performing movements attributed to the hip or knee over the past week. These results were self-reported on a scale of 0-4 (none, mild, moderate, severe, extreme, respectively). The HOOS JR and KOOS JR surveys were subsequently scored by summing the raw responses (ranges 0-24 and 0-28, respectively) and then converting it to an interval score (range 0-100), where 0 represents total hip/knee disability and 100 represents perfect hip/knee health. Patient chart data were also analyzed to determine same-day discharge rate, time to discharge, overall readmissions rates, and documented reasons for readmissions. Descriptive statistics and data analysis was performed using Microsoft Excel.

RESULTS:

There were 66 same-day discharge THA, 35 TKA, and 180 UKA in our patient cohort. The mean time to discharge for each group was 5.4 hours, 4.9 hours, and 4.7 hours, respectively. 100% of THA, 93.8% of TKA, and 93.0% of UKA patients surveyed stated that they would elect to undergo their respective procedure again. Furthermore, 94% of THA, 81% of TKA, and 95% of UKA patients stated they would like to be discharged on an outpatient basis again. THA patients reported a mean interval HOOS JR score of 94.7 (SD 9.5), TKA patients reported a mean interval KOOS JR score of 89.9 (SD 11.4), and UKA patients reported a mean interval KOOS JR score of 86.1 (SD 15.9) (Table 1). Finally, the readmission rate for THA was 3.0%, TKA 2.9%, and UKA 5.6%, respectively (Table 2).

DISCUSSION AND CONCLUSION:

Patients who underwent same-day outpatient TJA and UKA procedures at the AMCs included in this study experienced minimal readmissions and reported a high desire to repeat their outpatient procedures.

HOOS JR Questions for THA patients	None	Mild	Moderate	Severe	Extreme
Hip pain when going up or down stairs	28	5	0	0	0
Hip pain when walking on uneven surface	29	4	0	0	0
Difficulty rising from sitting	29	4	0	0	0
Difficulty bending to floor/pick up an object	29	4	0	0	0
Difficulty lying in bed (turning over, maintaining hip position)	28	5	0	0	0
Difficulty sitting	31	2	0	0	0
KOOS JR Questions for TKA patients	None	Mild	Moderate	Severe	Extreme
Knee stiffness when waking up in the morning	8	6	2	0	0
Pain when twisting/pivoting on your knee	13	2	1	0	0
Pain when straightening knee fully	15	0	1	0	0
Pain when going up or down stairs	11	3	1	1	0
Pain when standing upright	14	1	1	0	0
Difficulty rising from sitting	15	1	0	0	0
Difficulty bending to floor/pick up an object	16	0	0	0	0
KOOS JR Questions for UKA patients	None	Mild	Moderate	Severe	Extreme
Knee stiffness when waking up in the morning	20	13	6	3	0
Pain when twisting/pivoting on your knee	33	5	1	2	1
Pain when straightening knee fully	36	4	1	1	0
Pain when going up or down stairs	28	7	3	3	1
Pain when standing upright	36	3	1	1	0
Difficulty rising from sitting	32	5	2	2	0
Difficulty bending to floor/pick up an object	32	6	0	3	0

Table 1. HOOS JR and KOOS JR survey responses.

Reason for Readmission (THA)	Number
Joint Infection	1
Reason for Readmission (TKA)	Number
Scar tissue removal	1
Reason for Readmission (UKA)	Number
Soft tissue repair	1
Constipation	1
Swelling	1
Fluid aspiration	1
Psychiatric	2
Hemorrhoids	1

Table 2. Reason for readmission for THA, TKA, and UKA procedures.