An Automated Text Messaging System Decreases Staff Burden and Improves patient satisfaction in TJA

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INTRODUCTION:

Balancing the increasing volume of total joint arthroplasty (TJA) with attentive patient care can place immense burden on surgical staff. This study aimed to quantify and characterize the impact of implementing an automated text messaging system (ATMS) on patient phone calls, secure portal messages (SPM), and patient satisfaction in TJA.

METHODS:

Five surgeons from the same academic practice performed 145 consecutive primary TJA's over a 30-day period. Phone calls and SPM were prospectively quantified and characterized 2 weeks preoperatively and 2 weeks postoperatively. The ATMS was subsequently implemented, and the same prospective data collection process was repeated for 101 consecutive primary TJA patients over a different 30-day period. Data was investigated for differences in quantity and character of calls and SPM received between the control and ATMS groups. Five-star google reviews in the 4 months following TJA were also analyzed. A zero-inflated negative binomial regression analysis was used to assess for group differences.

RESULTS:

There was a twofold decrease in calls per patient in the ATMS group compared to the control group (2.23 vs 1.22, p= 0.001). The most common call reasons in both groups were surgery day instructions and medication refills. There was no significant difference in number of SPM received between groups (2.52 control vs 3.07 ATMS, p= 0.211). The most common SPM were postoperative dressing questions (ATMS group) and surgery day instructions (control group). In the 4 months after ATMS implementation, 83 patients left a 5-star google review, compared to 12 in the control group. Fifty-eight of the 83 5-star google reviews (69.9%) explicitly mention the ATMS. Patients in the ATMS group were younger than in the control group (63.1 vs 66.9, p=0.007); other demographics were similar.

DISCUSSION AND CONCLUSION:

An ATMS decreases staff burden and increases patient satisfaction in a large academic TJA practice.