Impact of total joint eras program implementation on same-day discharge/readmission rates and satisfaction

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Background

ERAS protocols allow for standardization of care with an emphasis on a number of controllable, evidence-based factors, including patient education and opioid avoidance. Following demonstrable improvements in patient care and cost savings with ERAS programs for colorectal and cystectomy surgery, we were asked by the orthopedic service to implement a similar program for same-day total joint replacement.

Methods

In January of 2016, patients scheduled to undergo elective total hip or knee replacement were sent to a new anesthesia-run ERAS clinic. Changes made with ERAS implementation are listed in table 1 below. Length of stay, 30d readmission, and HCAHPS satisfaction data were collected. Note that this was a trial program which ran for 2 months.

Results

Length of stay for knee replacement decreased from 2.48 to 1.06 days (n=1028 prior to and 17 after implementation). 30 day readmissions decreased from 8 to 0. Length of stay for hip replacement decreased from 2.27 to 1.00 days (n=852 prior to and 41 after implementation). 30 day readmissions decreased from 14 to 0. 74% of ERAS patients were discharged on day 0 compared to none previously. Average all-domain HCAHPS percentile scores increased from 66% to 98.6% after program implementation.

Conclusions

LOS, readmissions, and satisfaction all improved following implementation of a total joint ERAS program. While numbers were low given the brevity of the program trial, we have demonstrated the value of local change implementation and its ability to drive future change (ie. justifying/validating need for increased level of clinic staffing).

Table 1:

Intervention	Pre-ERAS	Post-ERAS
PreOp Class	large group	individual
Expectation Management	ambulation, safety	ambulation, safety, length of stay, analgesia, appropriate opioid risks/benefits

Exercise	pre/postop exercise discussed	pre/postop exercise discussed, PT/OT visit preop
Nutrition	N/A	preop albumin measured, if low or clinical signs of malnutrition patients given Impact AR for 5 days preop
Carbohydrate loading	N/A	Clearfast – 1 bottle on morning of surgery
Block	Anesthesiologist administered fascia iliaca block	surgeon administered intraarticular block
Multimodal analgesia	At discretion of provider, +/- preop oxycontin	preop Neurontin, acetaminophen, celecoxib. No oxycontin given
PONV prophylaxis	At discretion of provider	preop oral ondansetron, scopolamine patch if high risk
Lung health	N/A	incentive spirometer given/taught, and instructed to use 30x prior to DOS
Glycemic management	At discretion of provider	A1C drawn in preop clinic. Referral to endocrinology if >6.0 if undiagnosed diabetic