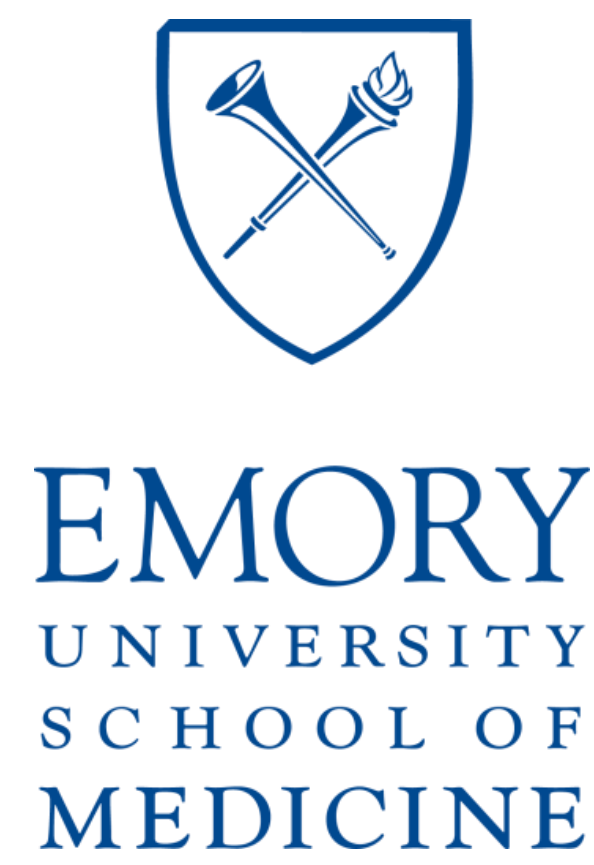




Pharmacy-Led Initiative for Improving Peri-operative Medication Reconciliation Among Bariatric Surgical Patients: What Is the Role?



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Background

Multiple medication changes are common after bariatric surgery due to reduced drug absorption and altered hormonal responses. Clinical pharmacists have expertise in providing safe recommendations for medication formulation changes, dosing and therapeutic alternatives. Pharmacist-directed pharmacotherapy consults have proven beneficial in many clinical settings, including surgical cohorts. Pharmacist assistance in the immediate post-operative setting after bariatric surgery is not well understood.

Purpose

This study evaluated the effectiveness of a pharmacy-led initiative for facilitating discharge medication reconciliation after bariatric surgery.

Methods

A retrospective review was performed on patients aged 18 years or older who underwent primary or revisional bariatric surgery at a 500-bed mixed community and academic hospital between July 2018 - December 2019. An inpatient clinical pharmacy consult intervention was implemented beginning January 2, 2019. Pre-intervention phase was July 1, 2018 - December 31, 2018 and post-intervention phase was January 2, 2019 - December 31, 2019. Patient characteristics, medication changes and 30-day outcomes were evaluated. 30-day outcomes included: discharge summary medication list discrepancies, patient-initiated phone calls and 30-day readmissions. Two-sample t tests or binomial tests were used for continuous or categorical variables, respectively.

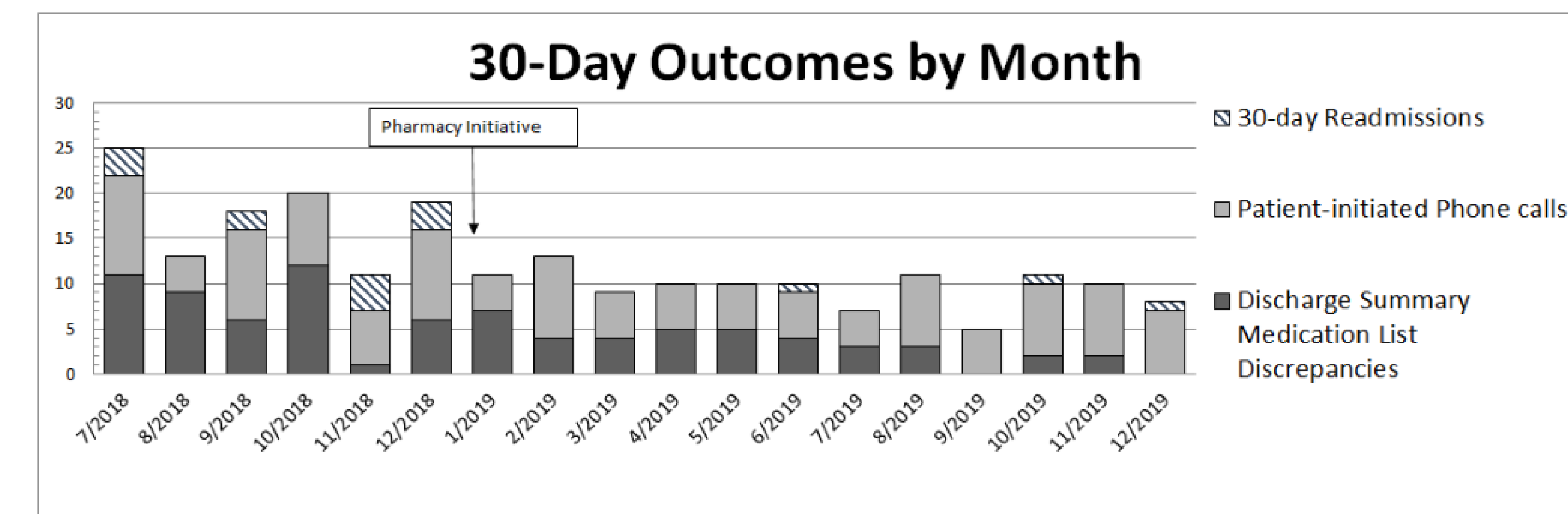
Results

In total, 353 patients were identified (n=158 pre-intervention, n=195 post-intervention); average age (44.6 pre- vs. 45.5 years post-intervention; p=0.48) and median BMI (46.5 ± 6.5 pre- vs. 47.5 kg/m² ± 7.8 post-intervention; p=0.15) were similar. Significantly more non-Hispanic blacks and females were in the post-intervention group. Overall, 195 consults were completed with 77.4% compliance to pharmacy recommendation changes. Significantly more home anti-hypertensives were stopped or decreased at discharge post-intervention compared to pre-intervention (44.7% pre vs. 85.4% post; p<0.001). No significant changes were noted with anti-diabetics. Post-intervention discharge narcotic selection was more standardized with significantly increased use of non-narcotic adjuncts (38.6% pre vs. 53.8% post; p<0.001), particularly the combination of acetaminophen and gabapentin. Overall improvement in 30-day outcomes was noted across the study period. Patient-initiated phone calls increased while discharge summary medication list discrepancies, medication-related 30-day readmissions, and all-cause 30-day readmissions decreased.

Medication Characteristics	Intervention Phase		p-value
	Pre-	Post-	
Pharm consults completed	NA	195	NA
Overall med rec changes followed	NA	151 (77.4%)	NA
Patients on anti-hypertensives	(n=94)	(n=123)	0.05
Stopped or decreased medications	42 (44.7%)	105 (85.4%)	<0.001
Continued old medications	51 (54.3%)	13 (10.6%)	<0.001
Patients on anti-diabetics	(n=41)	(n=60)	0.07
Stopped or decreased medications	27 (65.9%)	40 (66.7%)	0.43
Continued old medications	12 (29.3%)	17 (28.3%)	0.28

Results

Medication Class	Intervention Phase		p-value
	Pre-(n=158)	Post-(n=195)	
Narcotics	158 (100%)	190 (97.4%)	0.10
Oxycodone	40 (25.3%)	173 (91.1%)	NA
Hydrocodone-Acetaminophen	111 (70.3%)	2 (1.1%)	NA
Other non-narcotic analgesics	61 (38.6%)	105 (53.8%)	<0.001
1 medication	51 (32.3%)	63 (32.3%)	0.30
2 medications	7 (4.4%)	36 (18.5%)	<0.001
Acetaminophen	27 (17.1%)	51 (26.2%)	0.01
Gabapentin	12 (7.6%)	45 (23.1%)	<0.001



Conclusion

- Pharmacy consultation is feasible after bariatric surgery; high compliance with proposed medication changes was noted.
- The intervention increased use of non-narcotic discharge medication and more appropriate therapy for hypertension.
- Pharmacy consult execution required large investments in time, planning, and coordinated efforts among a multi-disciplinary team of clinicians, staff, and trainees multi-disciplinary.