



## 2024 NEW YORK REGIONAL SOCIETY OF PLASTIC SURGEONS ANNUAL RESIDENTS' NIGHT RESEARCH COMPETITION

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**ABSTRACT SUBMISSION TITLE:** *A2 - Day of Surgery Affects Length of Stay and Postoperative Recovery After Microsurgical Breast Reconstruction*

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**Abstract Text:**

**PURPOSE:**

Length of stay (LOS) after microsurgical breast reconstruction has decreased as a result of enhanced recovery after surgery (ERAS) protocols. Few studies have evaluated day of surgery and its effect on hospital LOS. The authors sought to analyze patient outcomes as a direct result of surgical date, and to characterize variables that may impact the hospital course.

**METHODS:**

A retrospective chart review was performed on all patients who underwent abdominal-based free flap breast reconstruction by a single primary surgeon at a single institute between August 2018 to July 2022. Patients were stratified based on the day of the week of the index procedure (Monday versus Thursday). Patient demographics, surgical characteristics, LOS, time to recovery milestones, and complications were compared.

## RESULTS:

107 patients were included. 57 patients underwent surgery on Monday, and 50 patients on Thursday. Patients with a Thursday case date had significantly longer LOS compared to Monday OR ( $3.5 \pm 0.9$  days vs  $3.1 \pm 0.7$  days;  $p=0.006$ ; TABLE1). Patients had comparable age, BMI, ASA class, operative times, distribution of unilateral vs bilateral, and immediate vs delayed reconstructions. Thursday cases were more likely to require re-exploration during the same hospitalization, although this did not reach significance ( $p=0.07$ ). Patients with a Thursday case date had a longer time to mobilization (mean extra 7.1 hours;  $p=0.04$ ) and Foley removal (mean extra 6.2 hours;  $p=0.007$ ). Both groups achieved equivalent pain control and had equal access to social workers for outpatient services (TABLE2). Logistic regression showed prolonged hospitalization  $>3$  days was associated with increased time to mobilization ( $p=0.01$ ) and Foley removal ( $p=0.005$ ), but not age, BMI, day of surgery, laterality, timing, operative duration, or unplanned return to OR. Patients had no difference in emergency room visits within 30 days of discharge or the rate of complications. Short-term patient-reported outcomes using BREAST-Q showed both groups of patients were equally satisfied with outcomes (73 vs 70), their surgeon (96 vs 92), and medical staff (100 vs 98).

## CONCLUSIONS:

Microsurgical breast reconstruction performed on a later day of the week can have longer hospitalization associated with a longer time to postoperative mobilization, although complication rates and outcomes were not affected. Quality improvement efforts will facilitate ERAS implementation for timely discharge.