

Institutional Experience with Variable Opioid Use for Gender Affirming Breast Surgery, Oncological Mastectomy, and Mammoplasty

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TAP TO GO BACK
TO KIOSK MENU

Introduction/Problem

- Surgeons have struggled to effectively treat postoperative pain without putting patients at undue risk of misuse and diversion from over-prescribing.
- Recent studies have shown a broad range of opioid prescriptions for patients undergoing surgeries with similar surgical exposure such as breast surgeries ¹⁻³.
- Determining best practices for prescribing may require identifying the demographic, social, and medical characteristics that define use.
- With projected rise in gender-affirming surgeries, accurate post-surgical prescribing for top surgery is imperative.
- In this study, we compare patient characteristics and prescribing practices in gender-affirming top surgery to two surgeries with similar surgical exposure.

Aim/Goal

- Identify differences in post-operative opioid prescribing and consumption.
- Evaluate patient characteristics that impact opioid consumption and pain control.

The Team

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- Sarah Duncan, BA Clinical Research Assistant II, FIRST Program
- Jasmine Austrie, BA, Clinical Research Assistant II, FIRST Program
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- Gabriel Brat, M.D., Acute Care Surgery, BIDMC

Methods

- October 2017-July 2018, patients undergoing mammoplasty reductions, gender affirmation mastectomies (GAM), and oncologic mastectomies were enrolled in an IRB approved study.
- Charts were reviewed for demographic, pre-operative mental health and substance misuse history, peri-operative surgical data, and pre-operative psychoactive medications.
- Phone call survey was conducted between 14- and 30-days post-discharge.
- Patients were asked to count the remaining pills from their post-operative opioid prescription. Total consumption was converted to morphine milligram equivalent (MME).

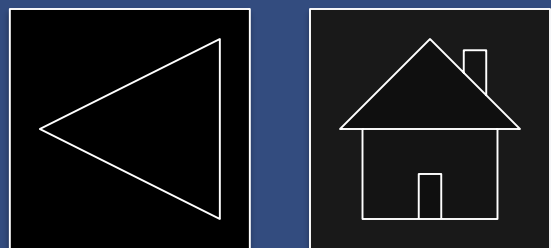
Results/Progress to Date

- 170 patients were identified as opioid naïve prior to surgery: oncologic mastectomy (N=25), mammoplasty reduction (N=79) and gender affirming mastectomy (N=65).
- 112 (66%) patients of patients agreed to participate in the phone call study. Patient characteristics of the three surgical groups are listed in Table 1.

Factor	Oncologic Mastectomy	Mammoplasty Reduction	Gender Affirming Mastectomy
N	17	43	39
Age at surgery, mean (SD)	62.8 (16.5)	39.7 (14.7)	27.7 (7.7)
Never Smoker	11 (65%)	31 (72%)	26 (67%)
Current Smoker	0 (0%)	1 (2%)	2 (5%)
History of Smoking	6 (35%)	11 (26%)	11 (28%)
Alcohol Abuse	0 (0%)	0 (0%)	1 (3%)
Diagnosis of Anxiety	5 (29%)	12 (28%)	16 (41%)
Diagnosis of Depression	1 (6%)	9 (21%)	12 (31%)
Diagnosis of Chronic Pain	1 (6%)	25 (58%)	4 (10%)
Diagnosis of Mood Disorder, Dysthymic Disorder, PTSD, ADD or ADHD	1 (6%)	4 (9%)	10 (26%)
At least one Mental Health Diagnosis	5 (29%)	16 (37%)	22 (56%)
Total Prescribed (MME)	83.08824 (59.51975)	204.9535 (86.41627)	254.9359 (52.33523)
Total Taken (MME)	16.47059 (31.02492)	108.1047 (100.6242)	124.0897 (104.4384)

Table 1: Patient Demographics of patients undergoing each surgery

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More Results/Progress to Date

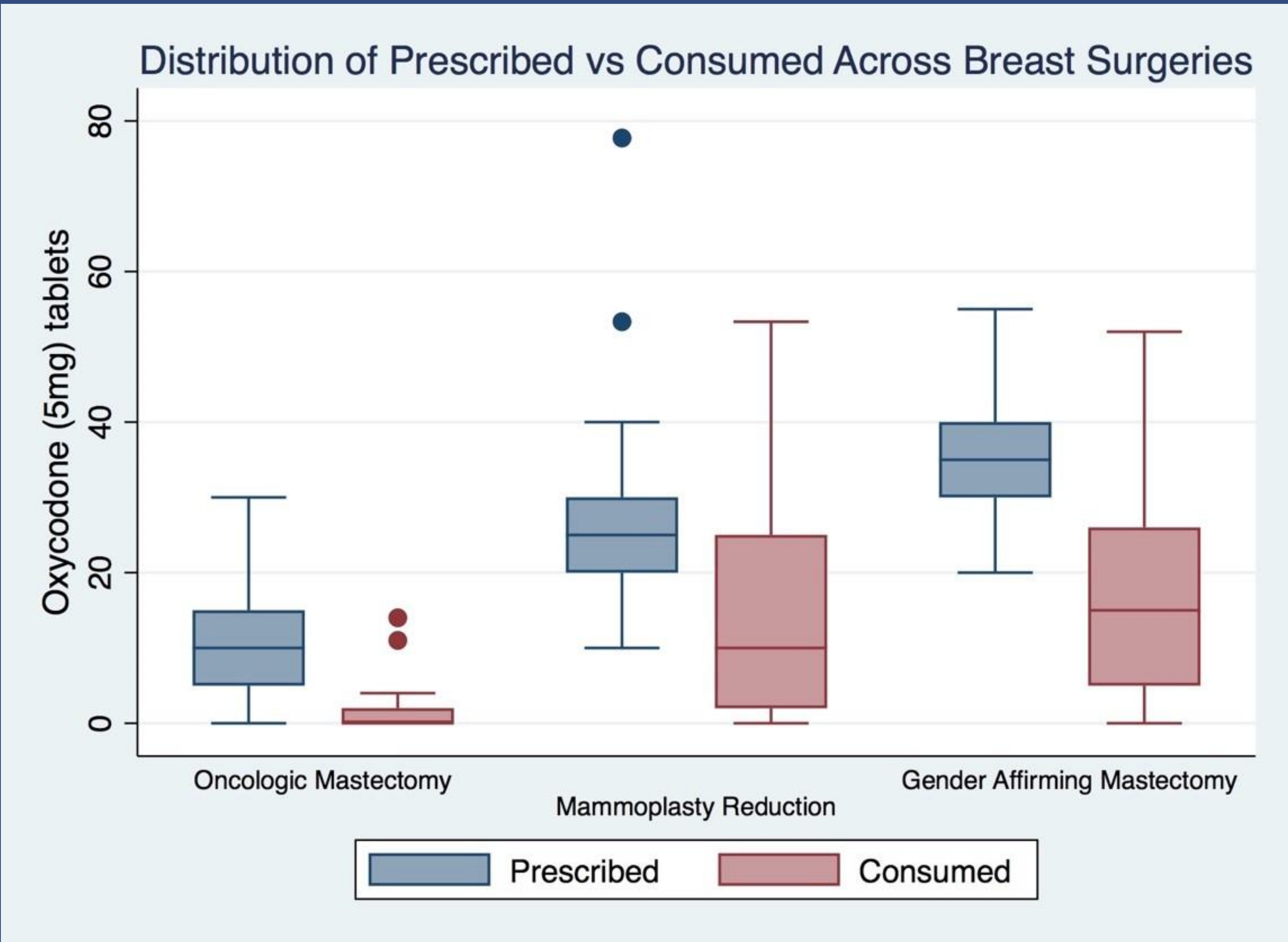


Figure 1: Amount of oxycodone prescribed verses consumed across the three breast surgeries evaluated.

- Oncologic mastectomy patients were prescribed significantly less opioid containing medication than mammoplasty reduction or GAM patients.
- GAM patients were prescribed significantly more opioid containing medications than mammoplasty reduction patients ($z < 0.001$), yet reported MME consumed was not statistically different between mammoplasty reductions ($z = 0.512$).
- Over prescription (based upon unused pills) ranged from 80.2% in oncologic mastectomies to 47.3% in mammoplasty reductions (Figure 1).

Lessons Learned

- This data demonstrates that breast surgery patients were generally overprescribed opioids, by a factor ranging between 2 and 5.
- Data suggests that each surgical group has unique opioid requirements that may be related to the specific demographic and health characteristics of the patients rather than the surgical exposure.
- Providers should not conflate mastectomy procedures without accounting for patient characteristics.
- Accurate prescribing based on patient profile is likely beneficial for improved pain control and reduced future risk.

Limitations

- Data is from a single academic center.
- Survey data has inherent participation and recall bias.

Next Steps

- Update surgical healthcare providers via surgery specific informational sessions about opioid prescribing.
- Collaborate with surgical providers who treat populations with known increased risk factors with personalized support, multimodal pain management, early and often post-operative check-ins.

References:

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- 2. Nooromid MJ, Blay E, Holl JL, et al. Discharge prescription patterns of opioid and nonopioid analgesics after common surgical procedures. Pain reports. 2018;3(1):e637. doi:10.1097/PR9.0000000000000637
- 3. Schreiber XL, Zinboonyahoon X, Xu X, et al. Preoperative Psychosocial and Psychophysical Phenotypes as Predictors of Acute Pain Outcomes After Breast Surgery. 2018. doi:10.1016/j.jpain.2018.11.004

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