2023 NEHS Annual Meeting Abstract Submission

COMPLETE

NEHS Vice President, Daniel Mastella, M.D., is currently accepting abstract submissions for presentation at our Annual Meeting on December 1, 2023.

This meeting will be held at the Sturbridge Host Hotel in Sturbridge, MA.

Therapists, NPs, and PAs are also encouraged to submit.

THE DEADLINE FOR SUBMISSION IS OCTOBER 15, 2023

RESIDENTS AND FELLOWS ONLY. Please indicate if you want your paper to be considered for the prestigious H.Kirk Watson, M.D. Founder's Award. The abstracts for award consideration will be presented in the morning and the award will be presented in the afternoon.

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* ABSTRACT TITLE

The Correlation of Surgical Setting with Opioid Prescriptions Following Wide-Awake Carpal Tunnel Release: A Nationwide Analysis

* Contact Person Name

Alexander Kammien

* Contact Person Email

* Contact Person Phone Number

* Name of who will present abstract at NEHS meeting on December 1, 2023 Please note that the same person cannot present more than one abstract at the meeting.

Alexander Kammien

* Please indicate if the presenter is:

Not currently a resident or fellow

* List full names of abstract authors Please note - one of the lead authors must be present at the meeting to answer questions about the paper.

Alexander J. Kammien, BS, Kevin Hu, BA, John Collar III, MD, K. Lynn Zhao, MD, Jonathan N. Grauer, MD, David L. Colen, MD

* ABSTRACT - should include background information and a description of methods, programs, or practices.

Introduction
Prior studies have compared postoperative opioid prescriptions between wide-awake and sedated carpal tunnel release (CTR), but none have investigated the association of opioid prescriptions with surgical setting. The current study utilized a large, nationwide, administrative database to assess postoperative opioid prescriptions following wide-awake CTR by surgical setting.

Methods
Patients with open CTR (CPT-64721) were identified in the 2010-2021 PearlDiver M157Ortho dataset. Exclusion criteria included age <18 years, <6 months of preoperative data, <1 month of follow-up, bilateral surgery, concomitant hand surgery and monitored anesthesia care or sedation.

Patients were stratified by surgical setting (operating room, office) and matched by age, sex, Elixhauser Comorbidity Index score and geographic region. Patients with opioid prescriptions within 6 months before surgery, opioid dependence or abuse, substance use disorder, back/neck pain, generalized anxiety disorder and major depressive disorder were identified.

The number of patients who filled opioids prescriptions within 1 month after surgery and morphine milligram equivalent (MME) of prescriptions were analyzed with multiple logistic regression and multiple linear regression respectively.

Results
Prior to matching, there were 286,452 surgeries in the operating room and 5,748 in the office. Each matched cohort included 5,713 patients.

In terms of opioid prescriptions filled, fewer patients with office-based surgery filled opioids prescriptions (43% vs 58%, OR 0.55, 95% CI [0.51, 0.59], p<0.001). Patients with increased age or residence in the Northeast or West (relative to Midwest) had decreased odds of filling a prescription, while those with increasing comorbidity burden and prior opioid prescription had greater odds (Figure 1)

In terms of MME prescribed, office-based surgery predicted lower MME (β = -94, 95% [CI -169, -18], p < 0.001). Increased MME was associated with ECI score >5, residence in the West (relative to Midwest), prior opioid prescription, opioid dependence and chronic pain, while age >75 and depression were associated with reduced MME (Figure 2).

Conclusions
Office-based CTR is associated with decreased filled opioids prescriptions and lower MME prescriptions, likely reflecting patient and provider attitudes about opioid utilization and pain control. Further patient-level investigation of these findings may provide insights that can contribute to the continued reduction of opioid utilization.

Please attach files with diagrams and/or photos to support your abstract (10 MB limit)

figures.pdf

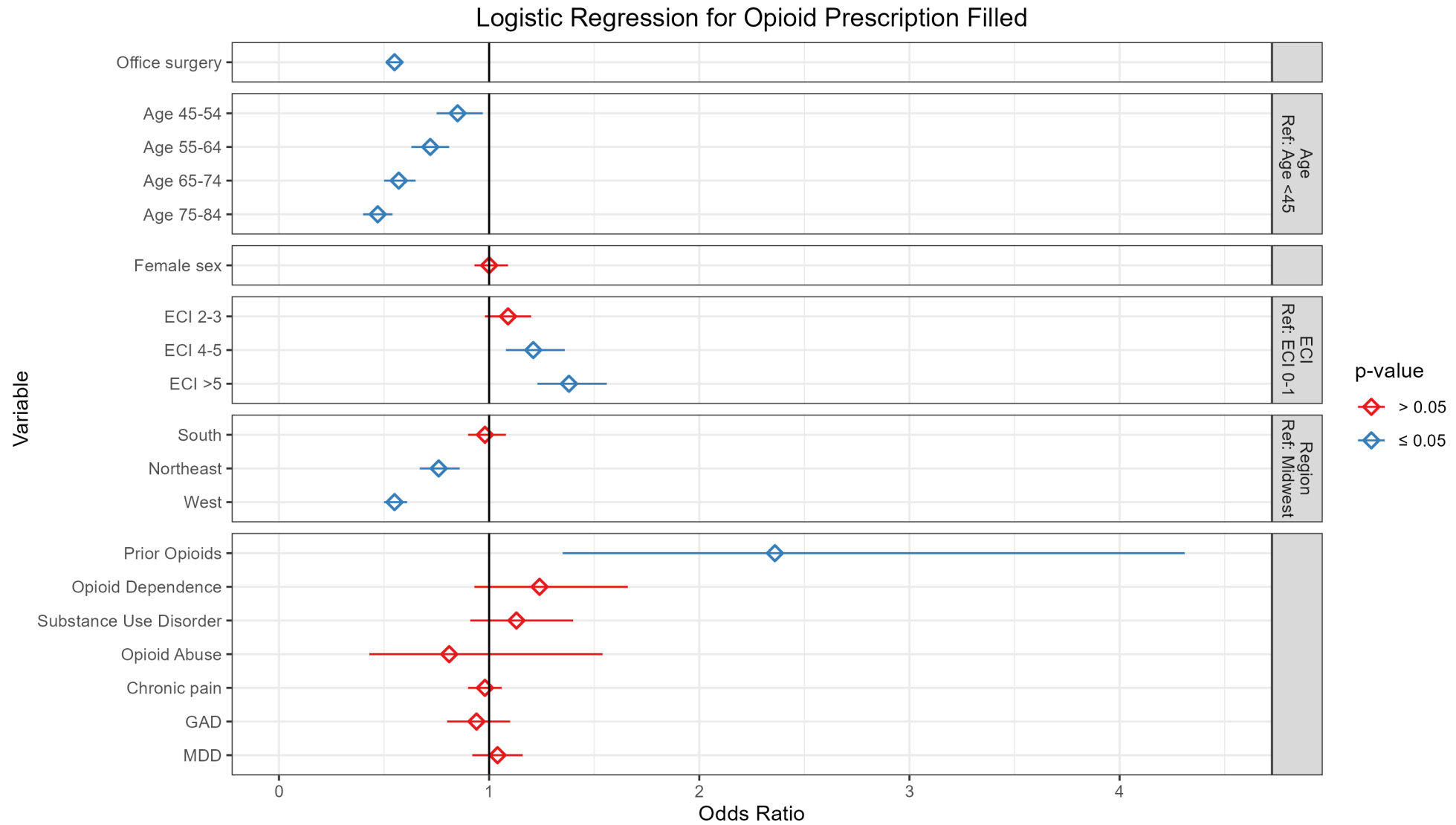## * Please attach the abstract presenter's CV

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Figure 1. Results from logistic regression assessing odds of filled opioid prescription within thirty days of surgery
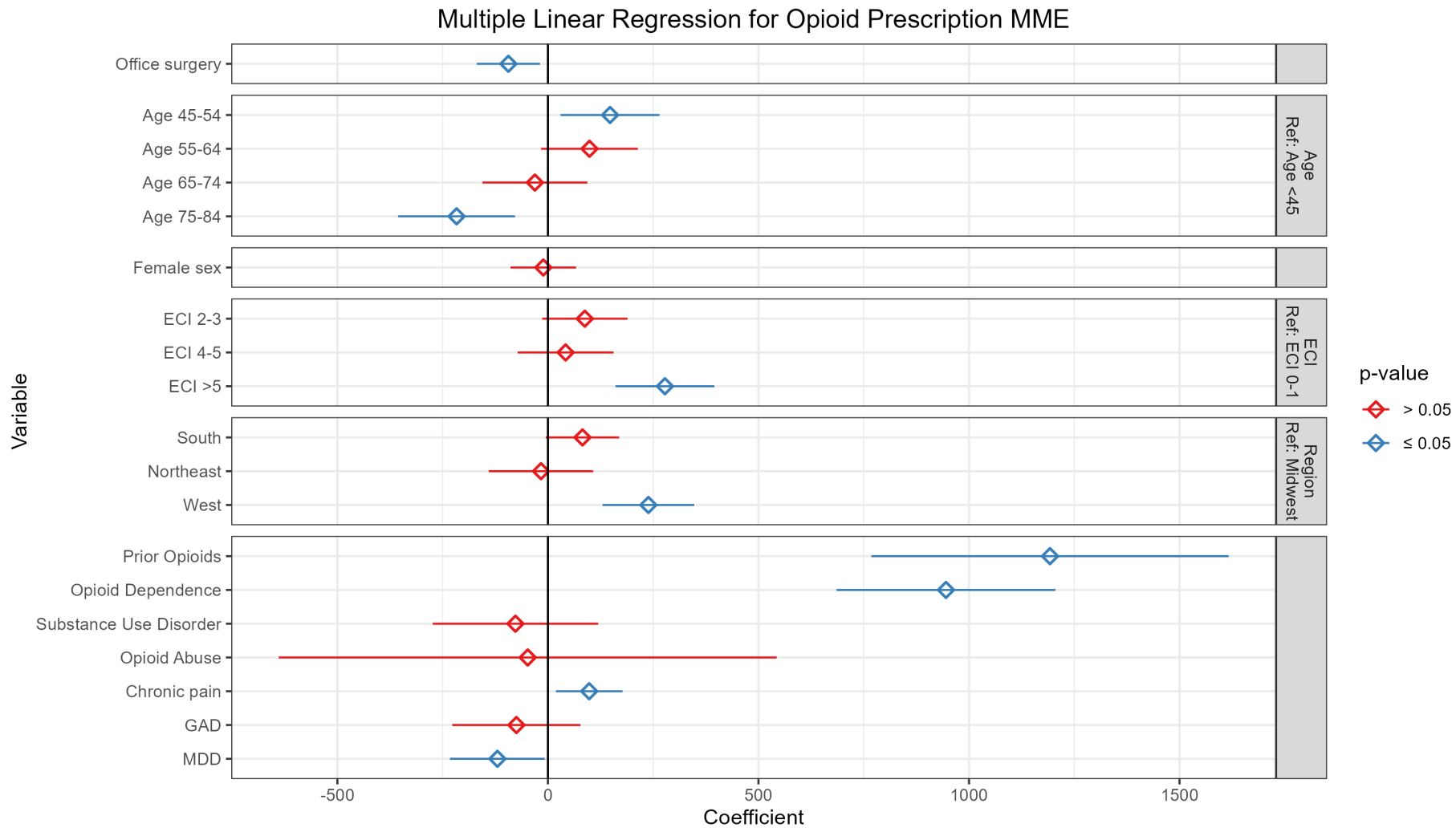
Figure 2. Results from linear regression assessing MME of opioid prescriptions