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### Published In/Presented At

Beauchamp, G. (November, 2020). *Surgical opioid stewardship for orthopedic surgery: A quality improvement initiative. Poster presented at AAHKS American Association of Hip and Knee Surgeons. Dallas, Texas*

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# Surgical Opioid Stewardship for Orthopedic Surgery: A Quality Improvement Initiative

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## Introduction

Post-operative prescribing may place patients at risk due to diversion of unused pills and iatrogenic opioid use disorder. We aimed to reduce opioid prescribing by sharing opioid utilization and prescribing data with prescribers.

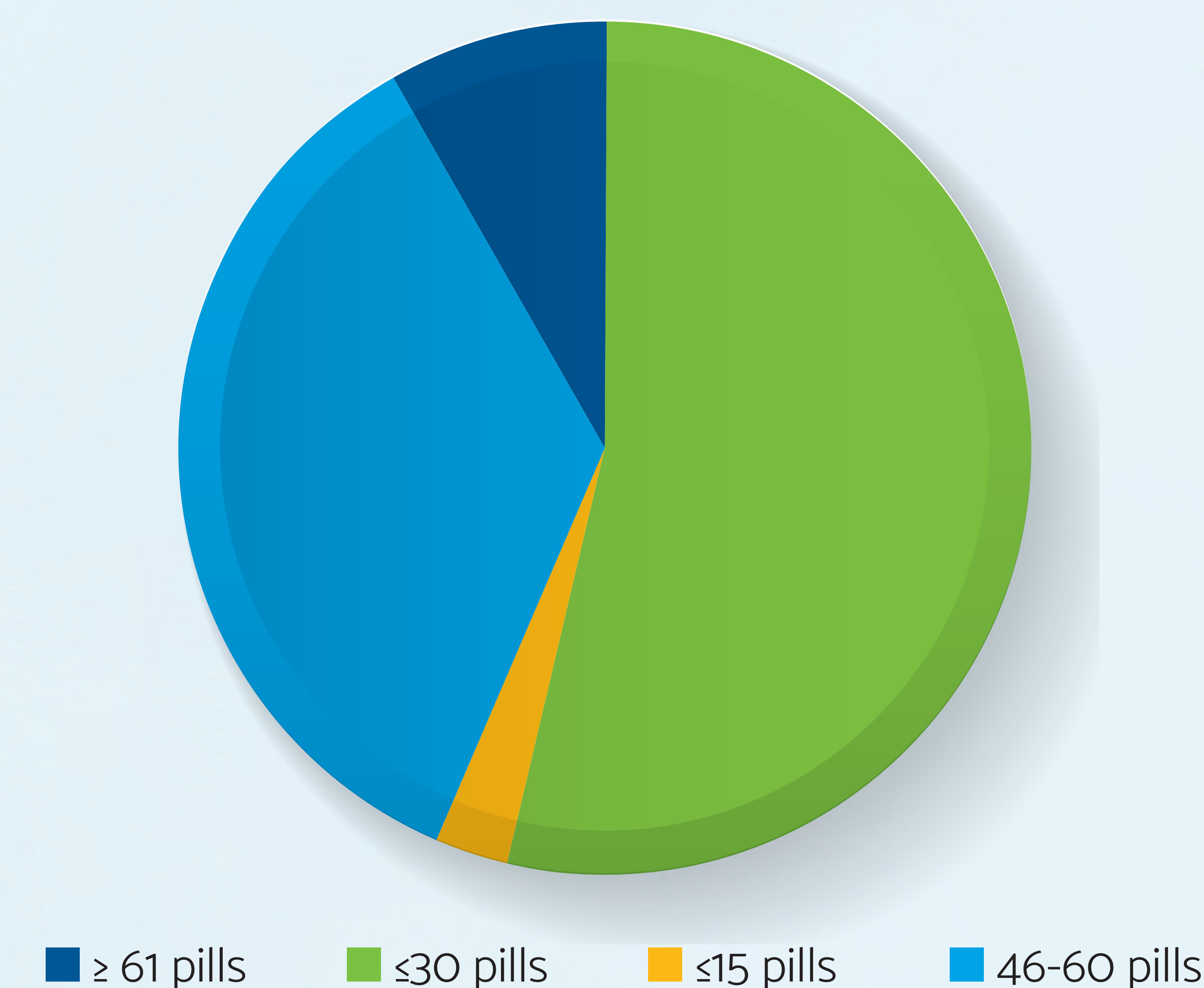
## Methods

We implemented a standardized post-operative opioid wean and monitored morphine milligram equivalents daily (MMED) and number of pills prescribed, return visits to the emergency department, and refills. We shared patient-reported post-operative opioid usage and prescribing data with prescribers. We calculated descriptive statistics for continuous and categorical variables.



## Results

Among 296 orthopedic post-operative patients of mean age 64.8±11.4 years, 147 females (49.7%) and 149 males (50.3%) prescribed an opioid: 50% had ≤ 30 pills: 7 (2.5%) ≤ 15 pills, 134 (47.3%) 16-30 pills, 27 (9.6%) 31-45 pills, 93 (33.0%) 46-60 pills, and 21 (7.5%) ≥ 61 pills. 52.4% reported taking > 80% of the opioid pills prescribed while 35.1% reported taking < 60% of the prescribed pills. 7.8% received a refill.



1,547 hospitalizations for joint replacement surgery were included from 6/2018 to 6/2020: 774 (50.03%) hips and 773 (49.97%) knees. 1,500 (96.96%) were discharged with an opioid prescription without a significant difference when comparing the post- to the pre-intervention periods (96.74% vs. 97.15%; p=0.65).

Among the 683 discharged with an opioid in the post-intervention period, 88 (13.03%) received a standard opioid wean. Use of the standard opioid wean in the post-intervention period was not significantly associated with return ED visit (14.29% vs. 12.98%; p=0.78). There was no significant difference in the proportion of refills within 30 days between the pre- and post-intervention periods (44.8% vs. 49.15%; p=0.09).

There was a significant difference in number of pills prescribed and MMED between pre- and post-intervention periods.

## Conclusions

Sharing opioid utilization and provider-facing prescribing metrics reduced post-operative opioid prescribing without significantly increasing opioid refill or ED return visit rates.

## ACKNOWLEDGEMENTS

The authors acknowledge Marna Rayl Greenberg, DO, MPH, for her oversight during this project, as Vice Chair of Research at Lehigh Valley Health Network Department of Emergency and Hospital Medicine; and Anita Kurt, RN, PhD for her oversight during this project as Director of Research Operations, Lehigh Valley Health Network Department of Emergency and Hospital Medicine. The authors appreciate the assistance of Lexis T. Laubach BS, Samantha B. Esposito, BS, Erin Shigo, BA, Alexis Saladino, BS and Jasdip Kaur, BS, of LVHN Department of Emergency and Hospital Medicine Research. We are grateful to MarySue Rother, CCRN for her contributions to this quality improvement process. Special thanks to Gail Pitsko, Project & Operations Coordinator, Quality Services Department for her administrative contributions to the project. This project was supported in part by a grant from the Dorothy Rider Pool Health Care Trust Awards for Transformational Clinical Excellence.