

# Unveiling the Need for Pain Management Guidelines for Nephrolithiasis

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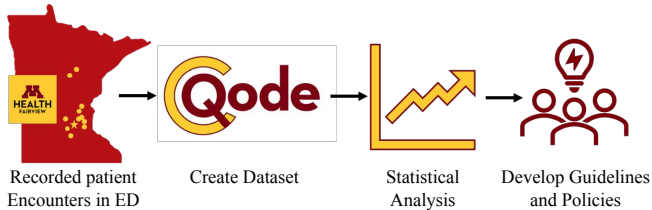


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## Introduction

- Implicit bias exists in medicine – including urology and acute pain management<sup>1,2</sup>
- Kidney stones are the most common urologic reason for emergent urologic care<sup>3</sup>
- Lack of literature assessing impact of socioeconomic (SE) factors on pain management for acute stones<sup>4,5</sup>
- We sought to characterize the influence of SE factors on likelihood of receiving opioids for acute nephrolithiasis using a large scale database in a major U.S. hospital system

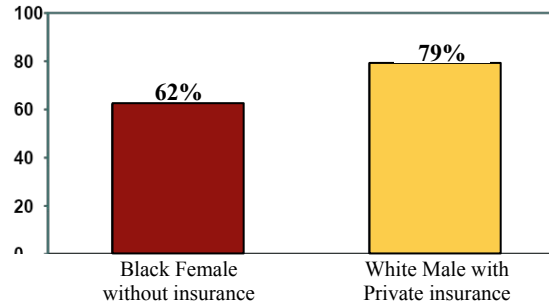
## Methodological Framework



- 17,000+ adult patient encounters from single system incorporating 14 emergency departments (EDs) including rural/urban and academic/community sites
- ICD N20 (kidney stone) during 2019-2022
- Logistic Regression model adjusted for: age, sex, race, primary language, insurance type, initial vitals

## Main Takeaways

Despite similar clinical presentation (vitals) among opioid and nonopioid groups, a **white male with private insurance was 17% more likely to receive opioid than a Black female with non-private insurance**



Variable	Adjusted Odds Ratio (95% CI)	P value
<b>Sex (Ref: Male)</b>		
Female	0.59 (0.54 – 0.64)	<b>&lt;0.01</b>
<b>Race (Ref: White)</b>		
Asian	0.93 (0.75 – 1.15)	0.53
Black	0.62 (0.52 – 0.76)	<b>&lt;0.01</b>
Hawaiian	0.98 (0.32 – 3.01)	0.95
Latin	0.86 (0.67 – 1.12)	0.22
Native American	0.44 (0.28 – 0.70)	<b>&lt;0.01</b>
Other	1.05 (0.51 – 2.20)	0.89
<b>Insurance (Ref: Private)</b>		
Medicare	0.69 (0.54 – 0.91)	<b>&lt;0.01</b>
Self-Pay/Low Income	0.86 (0.79 – 0.94)	<b>&lt;0.01</b>
Other	0.66 (0.42 – 1.07)	0.09

## Next Steps and Opportunities for Policy Action

**Goal:** Equitable, efficient, effective care of acute nephrolithiasis despite variations in SES without increasing provider workload/burnout

1. Add pain ratings, NSAID prescriptions, and ED setting (urban, suburban, rural) to database and compare opioid prescriptions over time for each group
2. Collaborate with emergency medicine providers and AUA urologists to create an evidence-based and realistic pain management guidelines for kidney stones
3. Implement guidelines and assess equity, efficiency, and quality of care over 6 months
4. Assess impact on workload for urologists and ED providers

## References

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