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#### Introduction

Peptic ulcer disease (PUD) affects over 6 million Americans annually. With improved medical treatment, only a small proportion of patients with complicated PUD undergo operative interventions, and those who do are less likely to have an acid-reducing procedure (ARP).

Although the recent patterns of treatment of complicated PUD have been previously described, it is not clear if there are sociodemographic or hospital variations in the use of ARPs among these patients.

### Objective

Therefore, the objective of this study was to identify disparities in the choice of management and outcomes of complicated PUD.

#### Methods

**Data Source:** National Inpatient Sample (2005-2014).

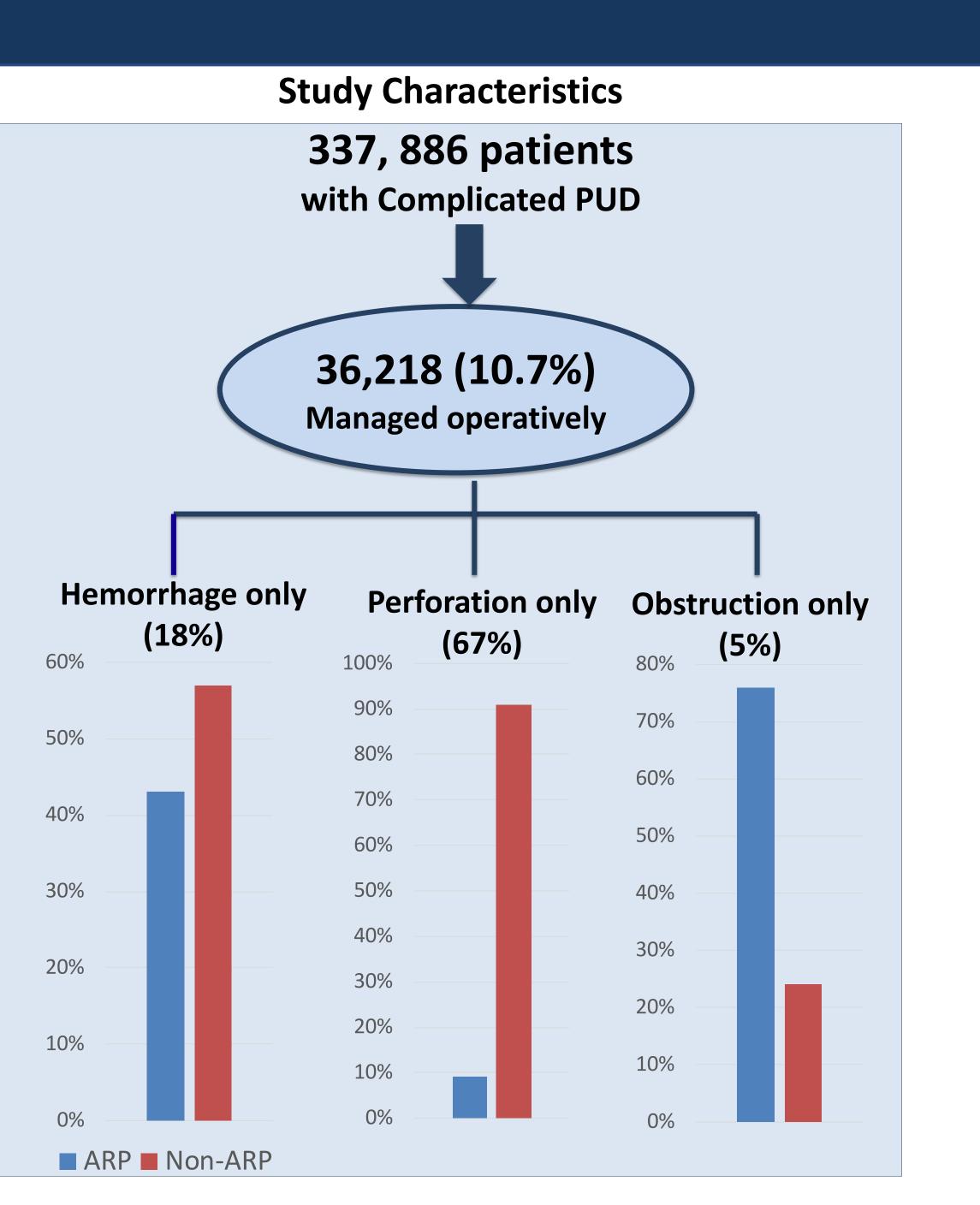
Inclusion Criteria: Patients with complicated PUD were identified.

Stratification: Hemorrhage perforation vs VS obstruction. Acid-reducing procedures (ARP) vs Non-ARP.

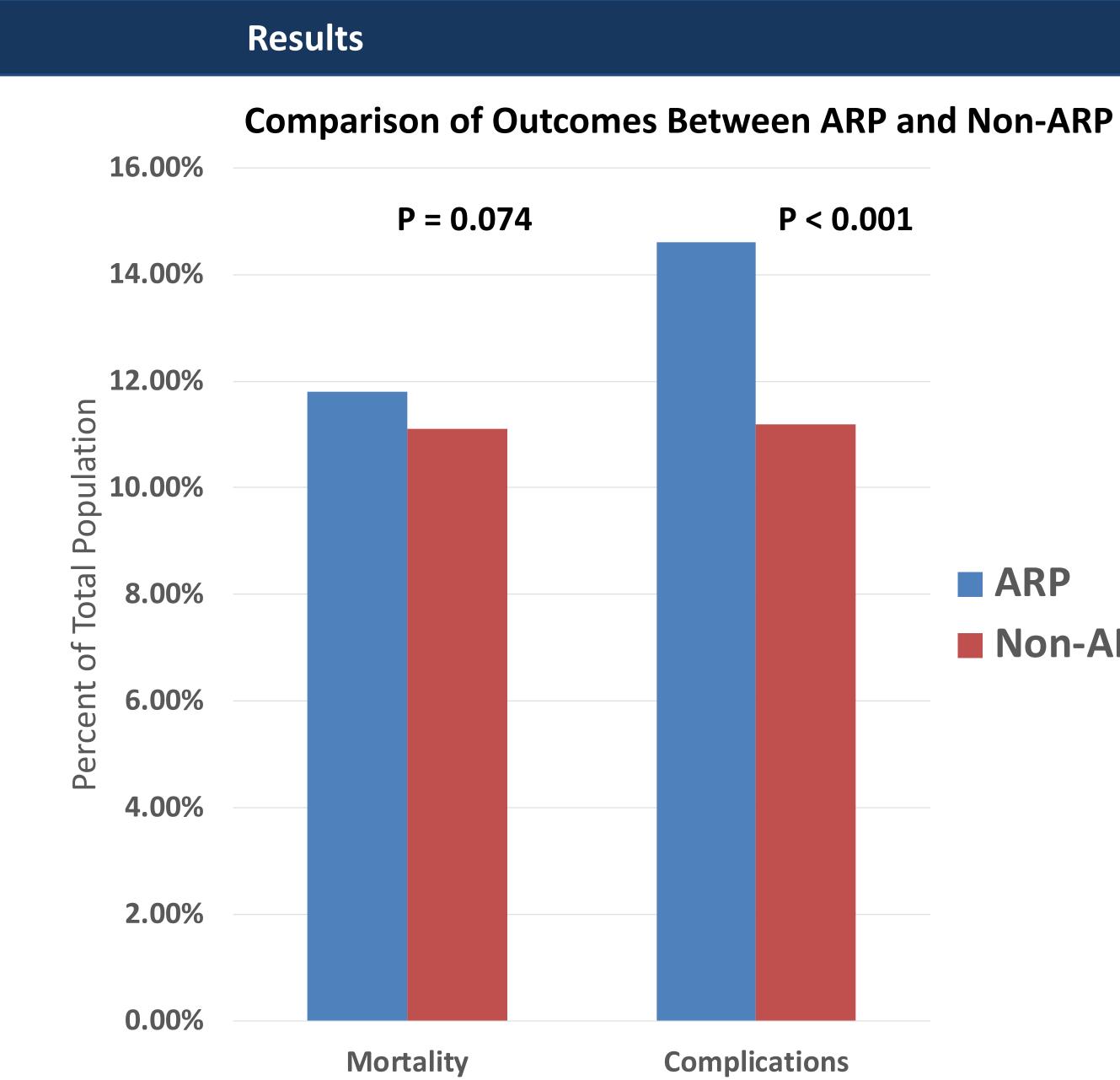
**Outcomes of interest:** Hospital mortality, Hospital complications

**Analysis**: Descriptive statistics to assess variations in the demographic, treatment, and hospital (safety net vs. non-safety net; rural vs. urban non-teaching vs. urban teaching) characteristics of these patients. Multivariate logistic regression models independent predictors for treatment and outcomes.

# **Contemporary Management and Outcomes of Complicated Peptic Ulcer Disease**



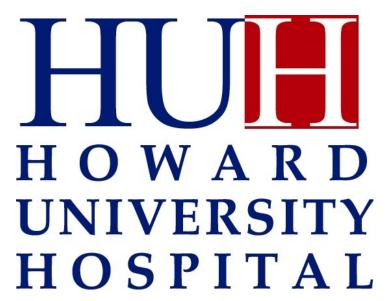
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Age (years)*    63    17.6    62    15.6    <0.001		ARP (N=7,834)		Non-ARP (N=28,384)		
Sex    0.022      Male    3,961    50.6    14,754    52.0      Female    3,872    49.4    13,601    48.0    0.004      Race/Ethnicity    76.2    17,813    74.3    0.004      White    5,012    76.2    17,813    74.3    1      Black    814    12.4    3,084    12.9    1      Hispanic    376    5.7    1,614    6.7    1      Other    372    5.7    1,469    6.1    1      Hospital Safety Net Status    5.7    1,469    6.1    1      SNH    1,949    24.9    6,831    24.1    1      SNH    5,885    75.1    21,553    75.9    0.034      Location/teachiry status of byspital    3,690    13.1    0.034		n	%	n	%	P-value
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#### Multivariate Analyses of Odds of Outcomes in Patients with ARP vs. Non-ARP

Hospital Type	Mortality Odds Ratio (95% CI)	Complication Odds Ratio (9 CI)
Safety Net	0.91 (0.74 – 1.11)	1.41 (1.20 – 1.
Non-safety Net	1.07 (0.97 – 1.18)	1.33 (1.20 – 1.
Rural	1.07 (0.79 – 1.45)	1.40 (1.07 – 1.
Urban Non-teaching	1.04 (0.91 – 1.19)	1.37 (1.21 – 1.
Urban Teaching	1.01 (0.89 – 1.16)	1.33 (1.17 – 1.
High ARP volume Hospital	0.83 (0.70 – 0.99)	1.32 (1.09 – 1.





**ARP** Non-ARP

ns 95%

.65) .46) .83)

.55)

.50)

Conclusions

Overwhelmingly, the preferred surgical treatment for complicated PUD was a non-ARP.

There was a survival advantage for ARPs among patients treated in those higher volume hospitals regardless of their sociodemographic status.

These data highlight the need to ensure the skills required to perform ARPs are not eliminated from the requirements of general surgery training.