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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).

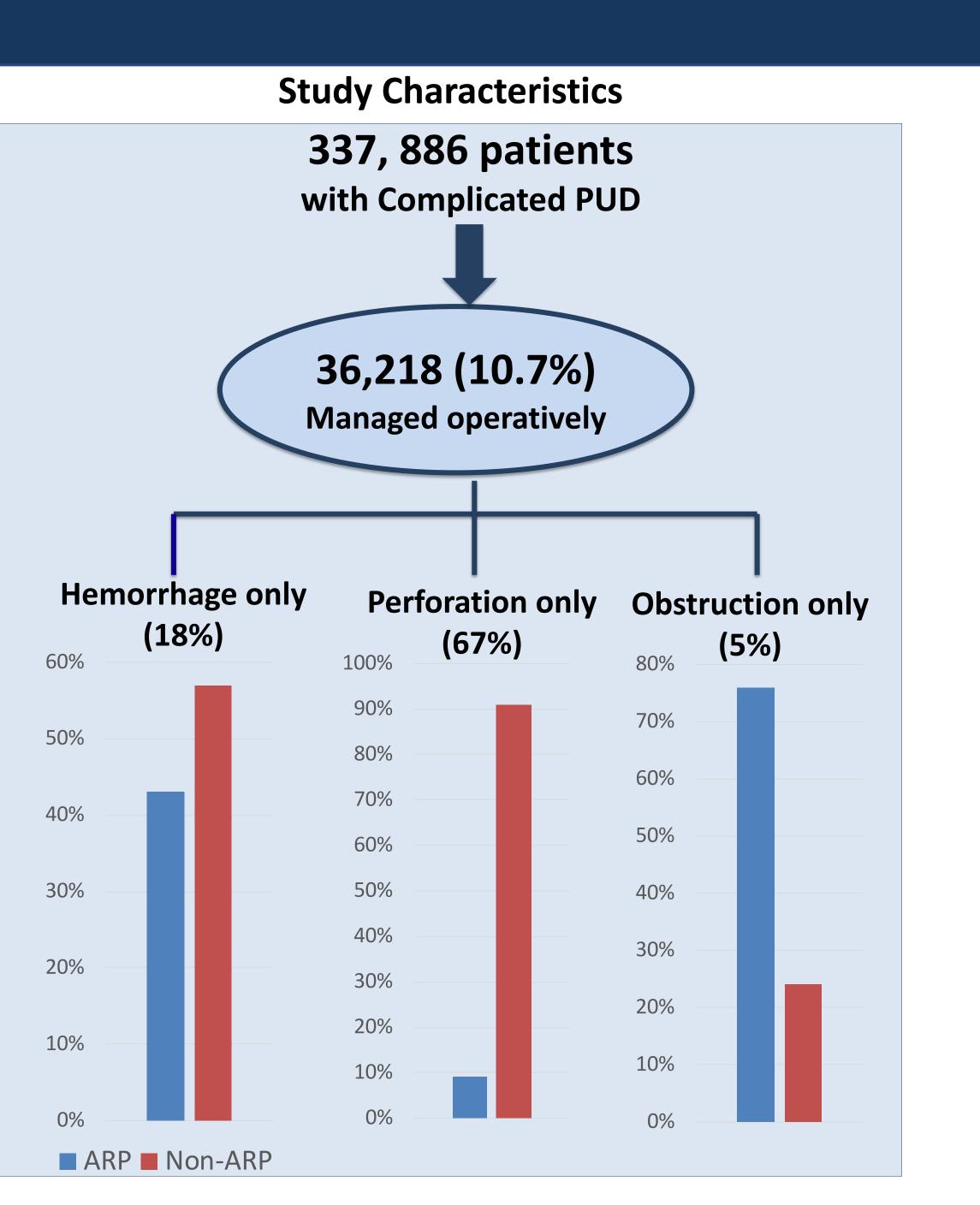
Inclusion Criteria: Patients with complicated PUD were identified.

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

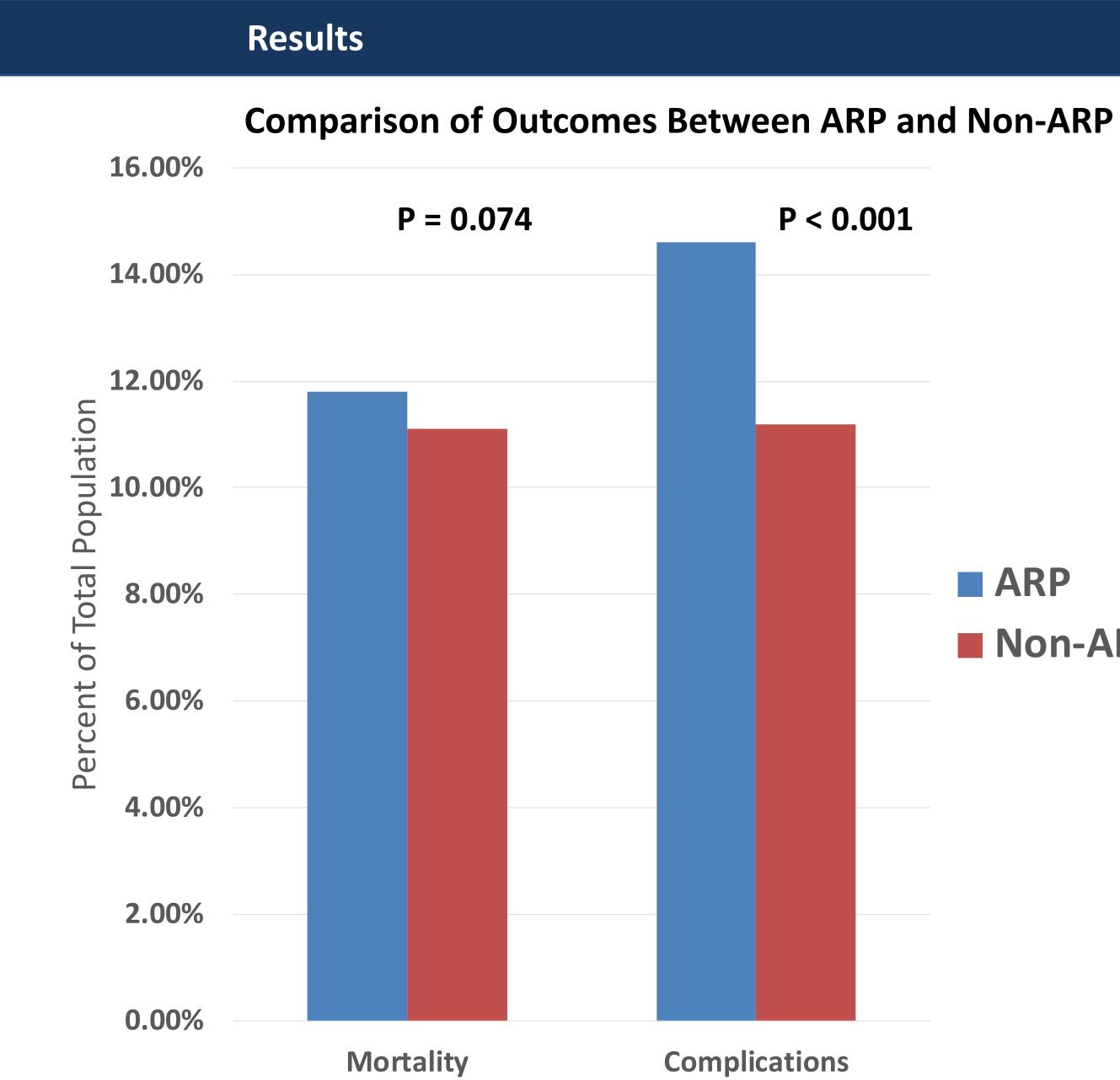
Outcomes of interest: Hospital mortality, Hospital complications

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



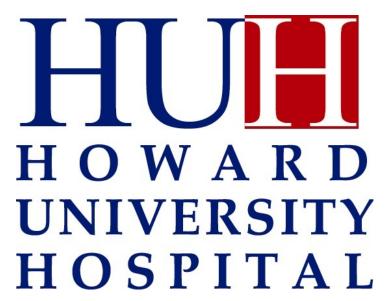
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Age (years)* 63 17.6 62 15.6 <0.001		ARP (N=7,834)		Non-ARP (N=28,384)		
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White 5,012 76.2 17,813 74.3 Black 814 12.4 3,084 12.9 Hispanic 376 5.7 1,614 6.7 Other 372 5.7 1,469 6.1 Hospital Safety Net Status 0.137 0.137 SNH 1,949 24.9 6,831 24.1 Non-SNH 5,885 75.1 21,553 75.9 Location/teaching status of hospital 0.034 0.034	emale	3,872	49.4	13,601	48.0	
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SNH 1,949 24.9 6,831 24.1 Non-SNH 5,885 75.1 21,553 75.9	Other	372	5.7	1,469	6.1	
Non-SNH 5,885 75.1 21,553 75.9 60.034 Location/teaching status of bospital 12.1 3,690 13.1 0.034	Hospital Safety Net Status					
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Rural 946 12.1 3,690 13.1	Non-SNH	5,885	75.1	21,553	75.9	
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	Jrban Non-	3,415	43.8	12,450	44.1	
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Teaching Teaching	Teaching					



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.