

High Compliance With The AASLD Cirrhosis Quality Measures Is Associated With Improved Outcomes In Cirrhosis With Acute Variceal Bleeding: Singapore Nationwide Audit

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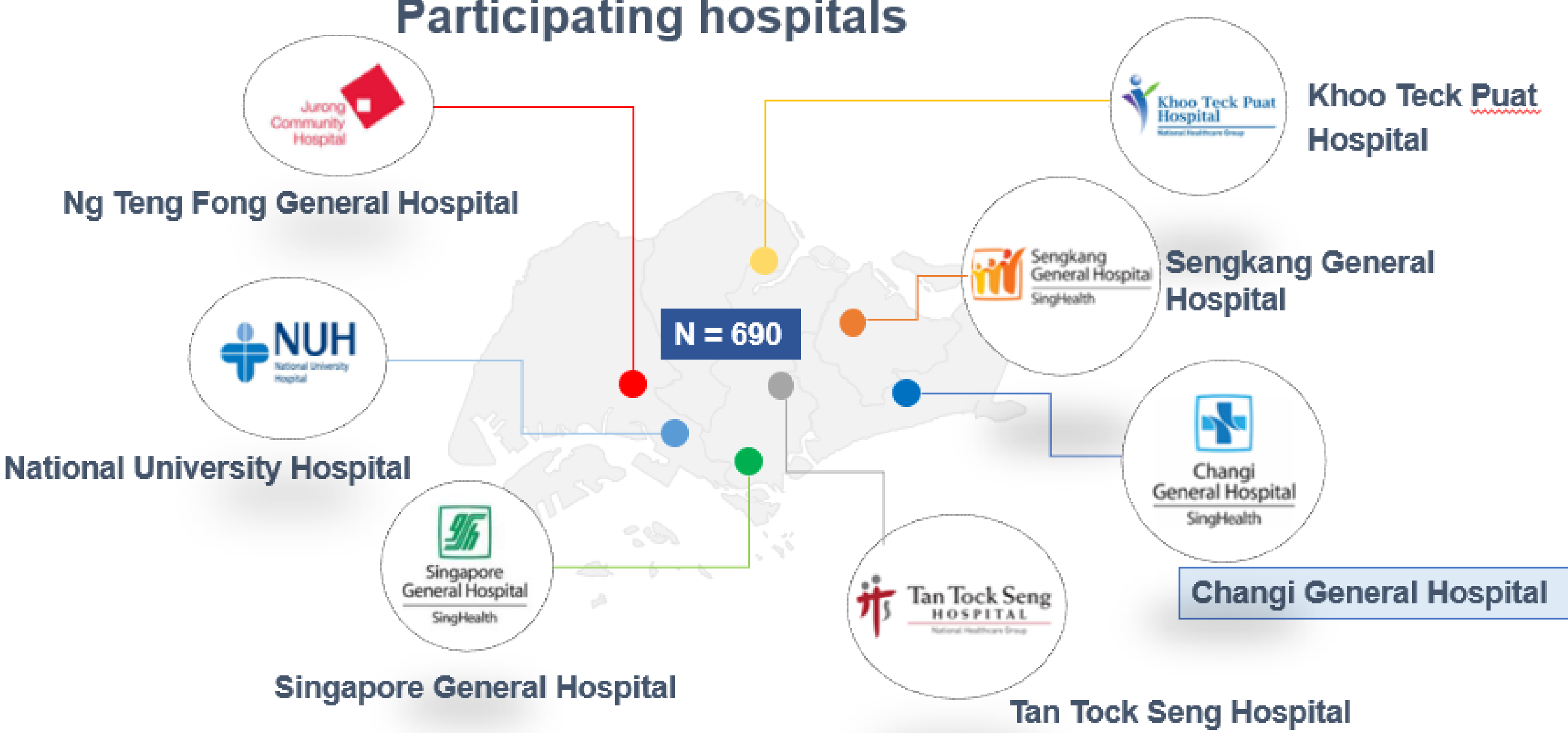
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BACKGROUND & AIMS

- Acute variceal bleeding (AVB) is a common life-threatening complication of liver cirrhosis with high 6-week mortality of 10-20%, and rebleeding rate of up to 60% in high-risk patients
- AASLD cirrhosis quality measures¹ were introduced in 2019 to assess quality of care provided to cirrhosis patients, but real-world adherence remains unclear
- The Singapore Nationwide Variceal Bleeding Audit was proposed to address the following gaps
 - Real-world adherence to clinical practice guidelines when managing AVB in Singapore
 - Lack of updated and representative data on clinical outcomes of AVB in Singapore
- Hence, the aims of the study were:
 - To determine real-world compliance rate to AASLD cirrhosis quality measures on AVB
 - To determine clinical outcomes of AVB – early rebleeding within 5 days, and 6-week mortality

METHODS

Singapore Nationwide AVB audit: Participating hospitals



- All public hospitals in Singapore were invited to participate in the audit
- All AVB patients hospitalised from 1 Jan 2015 – 31 Dec 2021 were included
- Standardised methods were used across all sites for patient identification, data extraction, and reporting
- All patient records were individually reviewed by investigators and data was extracted using a standardised template
- AVB patients re-admitted to another hospital following their index AVB episode were excluded to avoid duplication
- De-identified data was then sent to coordinating site (CGH) for analysis

Outcome measures

- Early rebleeding within 5 days
- Mortality at 6 weeks

Process measures

- Prophylactic antibiotics within 12 hours of admission
- Vasoactive agents within 12 hours of admission
- Early endoscopy within 12 hours of admission
- Achievement of haemostasis during index endoscopy
- Endoscopy treatment and non-selective beta-blocker (NSBB) before discharge

CONCLUSION

- Overall adherence to AASLD cirrhosis quality measures was high (>80%) and adherence was associated with improved AVB outcomes
- Child-Pugh class C patients with AVB had poor outcomes despite high adherence to quality measures
- There was low uptake of pre-emptive TIPSS among AVB patients in Singapore

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References: ¹Kanwal F, Tapper EB, Ho C, et al. Development of Quality Measures in Cirrhosis by the Practice Metrics Committee of the AASLD. Hepatology 2019

RESULTS

Early rebleeding within 5 days: 6.2%
6-week mortality: 13.7%
1-year mortality: 26.2%

	Overall n = 690
Demographics	
Age	62
Male Gender (%)	74
Ethnicity (%)	
- Chinese	63
- Malay	21
- Indian	11
Disease Characteristics	
Severity of cirrhosis (%)	
- Child-Pugh A	35.2
- Child-Pugh B	58.5
- Child-Pugh C	6.3
- MELD >15	34.6
Complications	
Prior variceal bleeding (%)	18
Ascites (%)	29
Prior HE (%)	35
HCC (%)	27
Portal vein thrombosis (%)	17

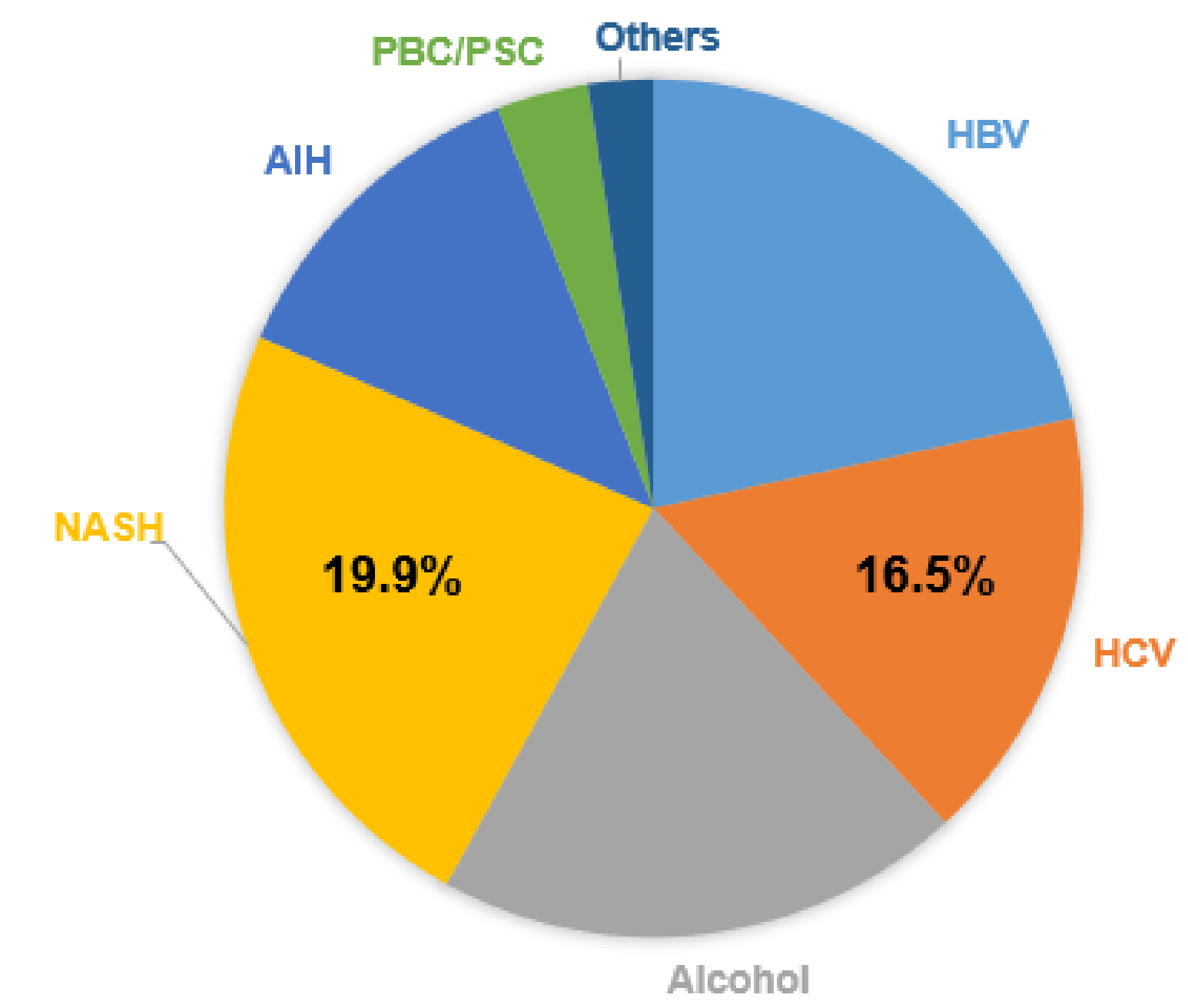


Table 1. Baseline demographics and disease characteristics.

Compliance with AASLD cirrhosis quality measures

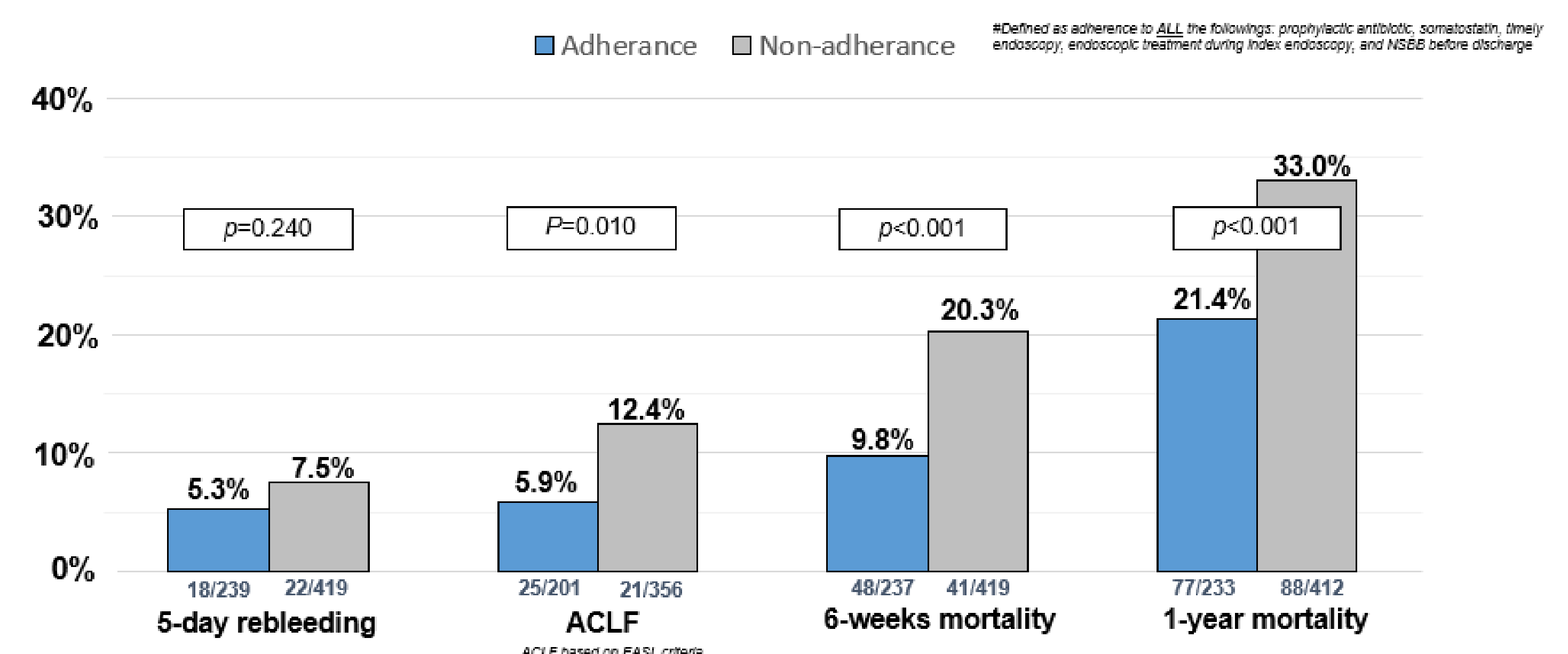
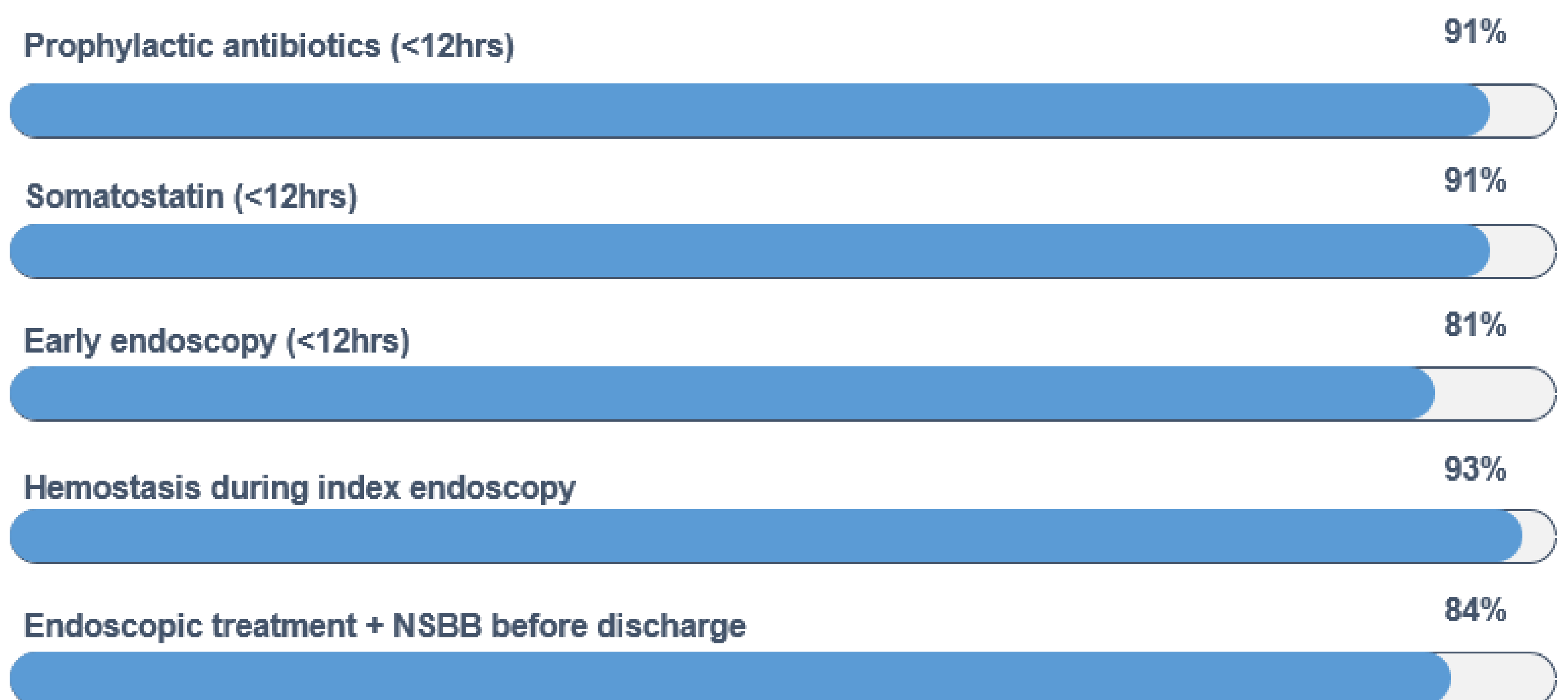


Figure 1. Association between adherence to AASLD quality measures and AVB outcomes

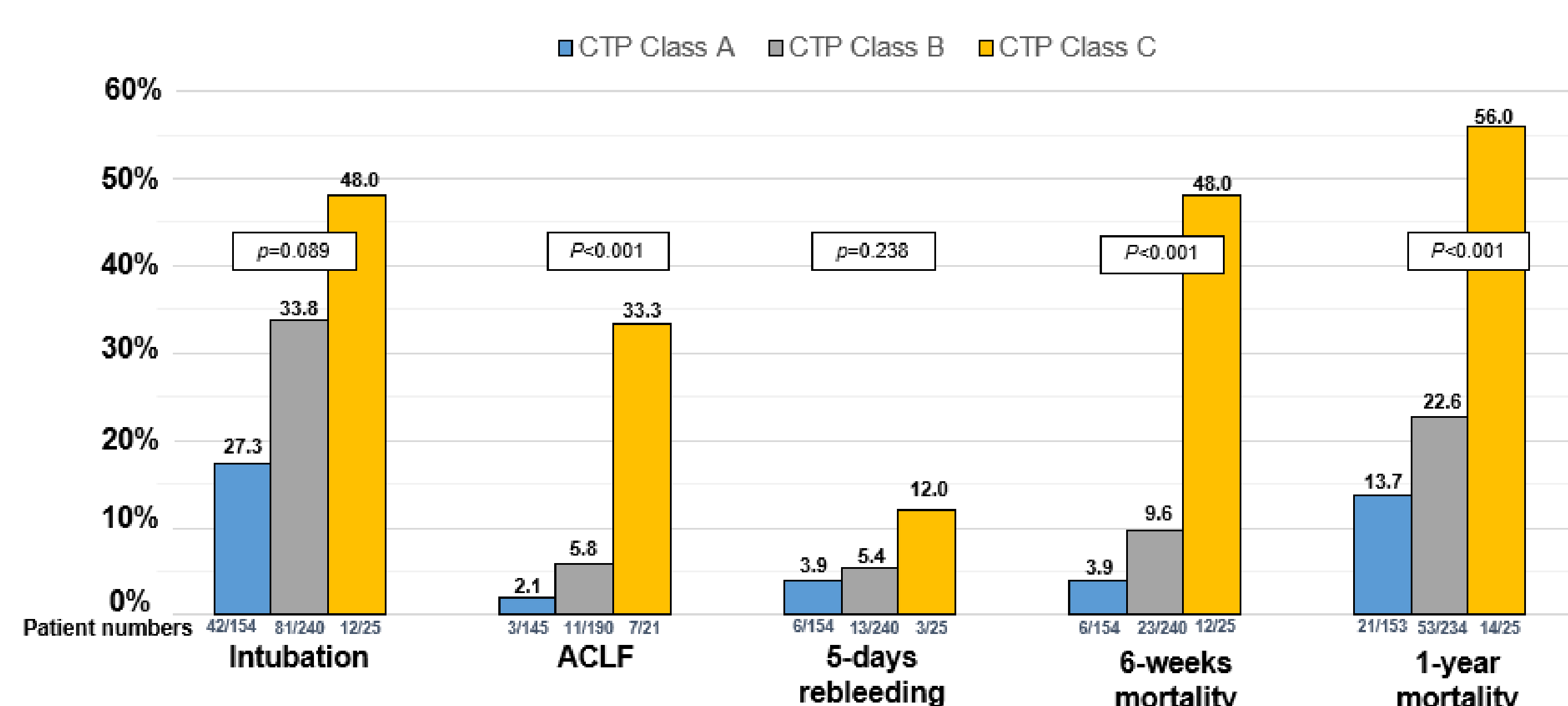


Figure 2. Association between Child-Pugh class and AVB outcomes in adherent patients

- 16.1% of AVB patients were eligible for pre-emptive TIPSS (pTIPS), but only 3.7% of patients underwent pTIPS