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Standardizing VTE Prophylaxis Guidelines Using the Caprini Risk Score in Surgical Patients at an Academic Medical Center – A Pilot Study

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Introduction

- The Caprini Risk Score (CRS) is easily calculated and helps identify patients at greatest risk of developing a venous thromboembolism (VTE)
- Our previous study identified modifiable practice patterns related to VTE prophylaxis that could potentially reduce the occurrence of VTE in high-risk surgical patients
- We developed standardized guidelines for pre-operative and post-operative VTE prophylaxis based on CRS while leveraging customized order sets and hard-stops in the EMR within the Department of Surgery at a single academic institution
- As part of a pilot study, one division (HS group) had hard-stops built into the EMR for CRS documentation while other divisions electively participated in the protocol (EP group)

Methods

- Following implementation, retrospective chart review was performed to evaluate:

1. Compliance of CRS documentation between HS and EP groups



Pre-operative setting
Post-operative setting
Discharge setting

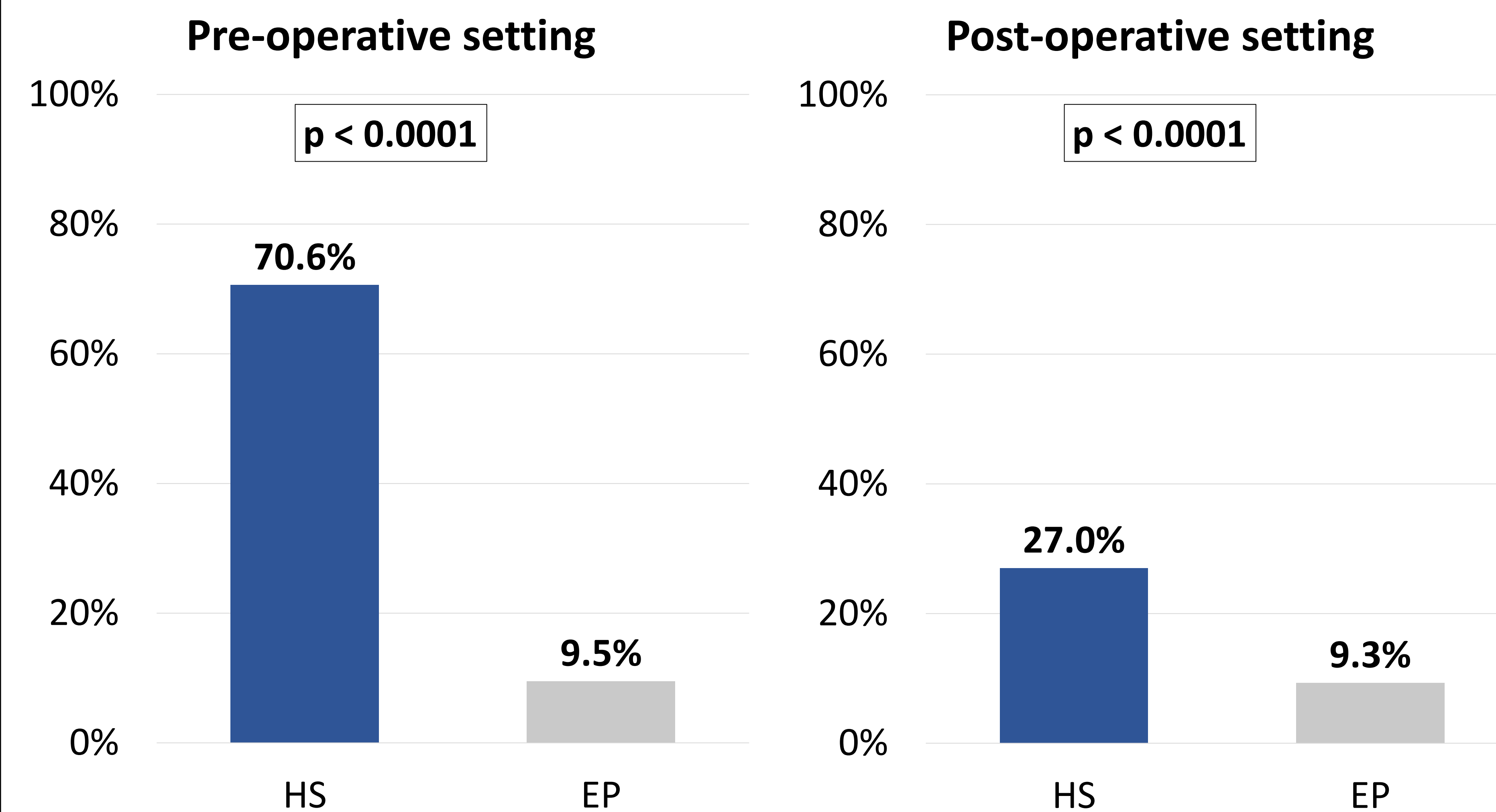
2. Rates of chemical VTE prophylaxis between historic and pilot study data sets



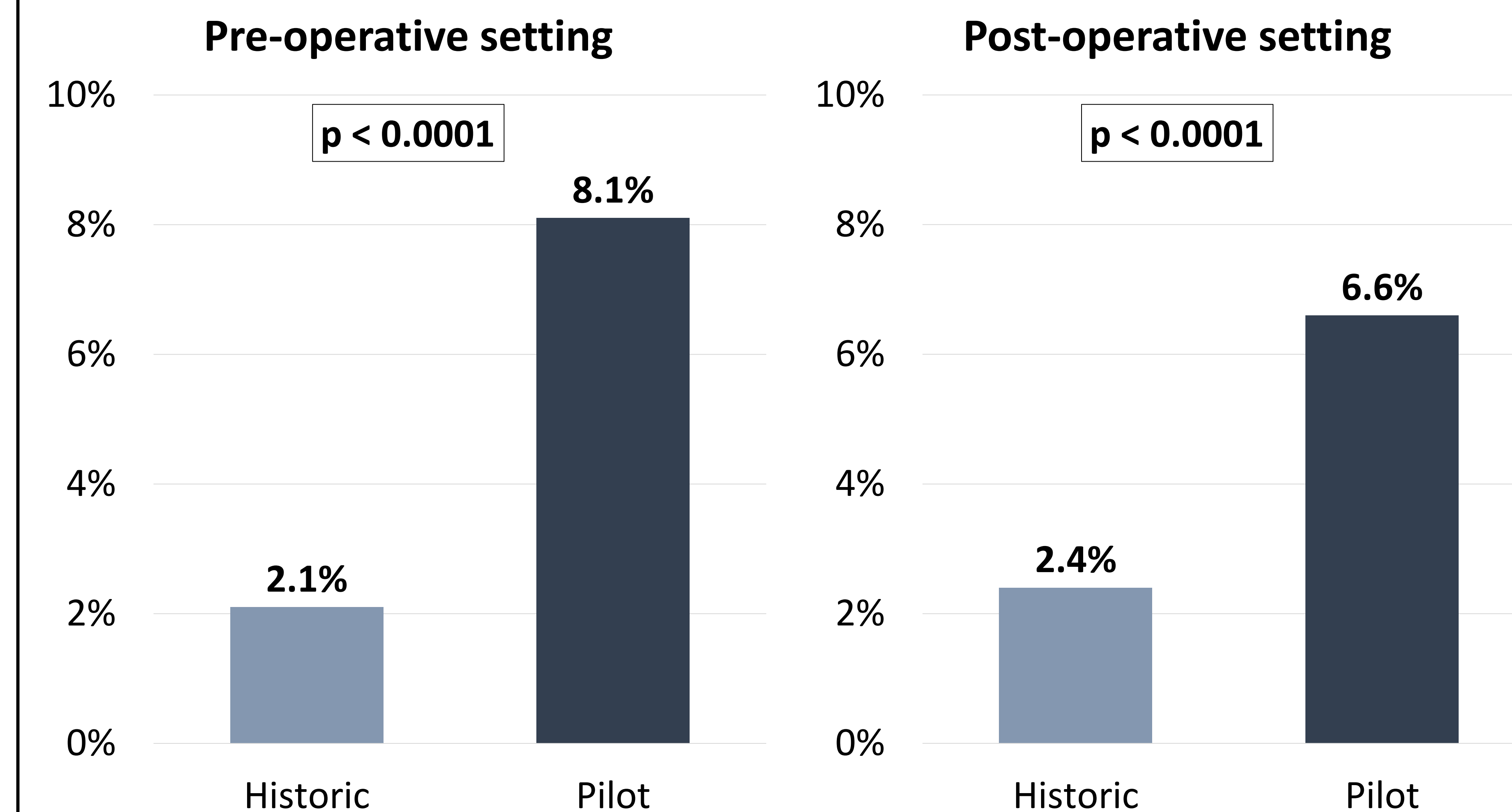
Pre-operative setting
Post-operative setting

Results

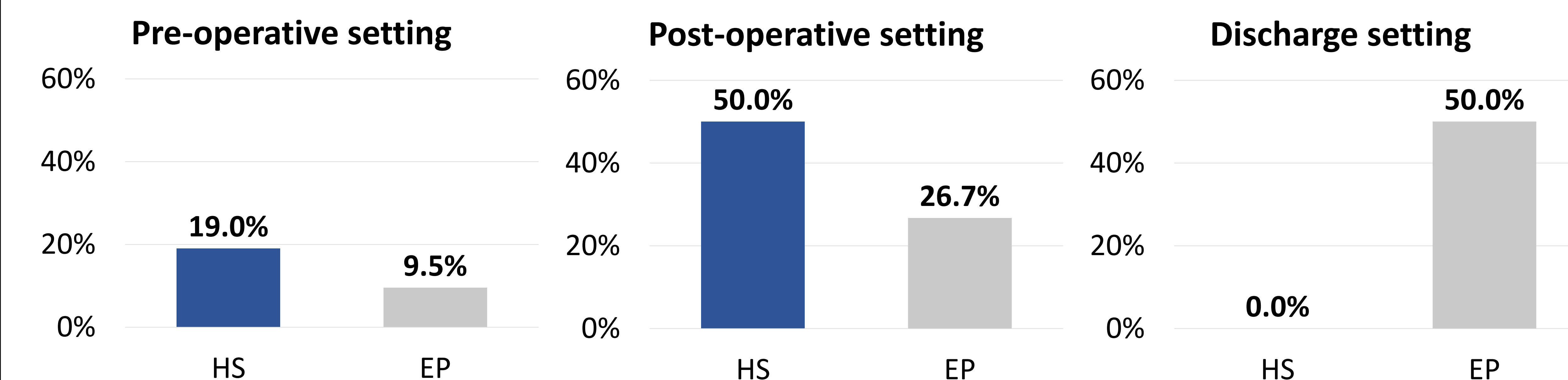
Compliance of Caprini Score Documentation



Rates of Chemical VTE Prophylaxis Administration



Pilot Study Trends in Rates of Appropriate Chemical VTE Prophylaxis Administration



Conclusion

- Implementation of standardized VTE prophylaxis guidelines significantly increases the rate of VTE prophylaxis administered in the pre-operative and post-operative settings
- Leveraging hard-stops in the EMR increases compliance with CRS calculation in both the pre-operative and post-operative settings
- Future directions will focus on expanding hard stops to all divisions, addressing compliance issues, as well as comparing VTE and bleeding events post-implementation to historic data