

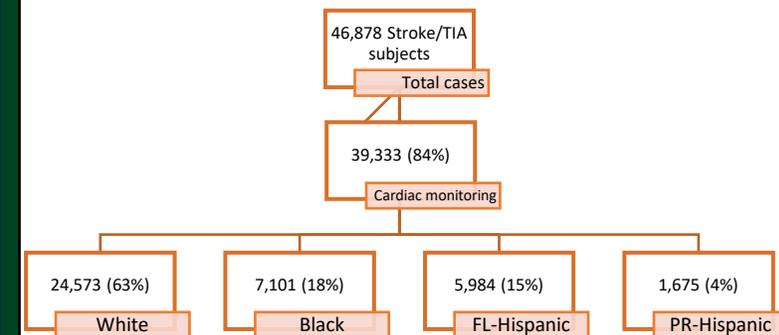
## INTRODUCTION

We sought to evaluate overall and race/ethnic trends in the rate of ECG monitoring and types of prolonged cardiac monitoring performed in-hospital after ischemic stroke and transient ischemic attack (TIA) across a large network of hospitals in Florida and Puerto Rico (PR).

## HYPOTHESIS

We hypothesized that Hispanic and Black patients were less likely to receive prolonged cardiac monitoring after ischemic stroke/TIA compared to White patients.

## METHODS

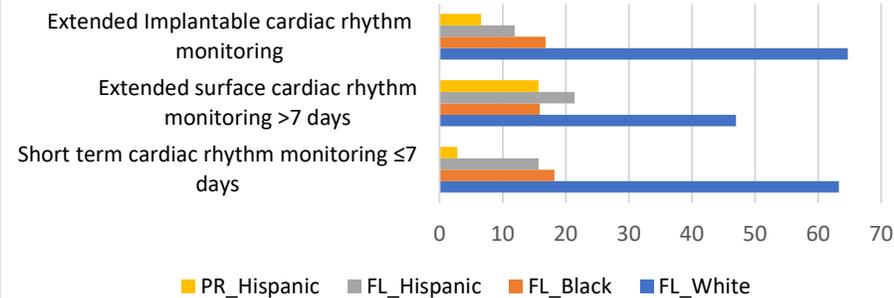


**Figure 1.** Flow diagram of 46,878 stroke/TIA cases in the registry with data on in-hospital cardiac monitoring.

- Univariate analysis was performed to determine the overall rate of ECG monitoring and the characteristics of patients who received cardiac surface monitoring  $\leq 7$  days and  $> 7$  days, and implantable cardiac rhythm monitoring.
- Multivariate logistic regression was performed to identify factors associated with the various types of prolonged cardiac rhythm monitoring.

## RESULTS

**Figure 2.** Percentage of patients who received prolonged cardiac monitoring by type and race/ethnicity



- Overall, 39,333 (84%) patients admitted for stroke/TIA received ECG monitoring during hospital admission (mean age  $71 \pm 14$  years; 49% female).
- After adjustment, **smokers and patients age  $> 80$  years** were less likely to receive ECG monitoring overall (OR 0.95, 95% CI 0.9-0.99 for both).
- **Black race** was associated with receiving extended surface monitoring  $> 7$  days (OR 1.15, 95% CI 1.04-1.26) and negatively associated with implantable cardiac monitoring (OR 0.81, 95% CI 0.68-0.96).
- Patients with **moderate to severe stroke** had higher odds of extended surface monitoring  $> 7$  days (OR 2.29, 95% CI 1.89-2.77), yet lower odds of implantable cardiac monitoring (OR 0.80, 95% CI 0.71-0.89).
- There were **no sex differences** observed.

## FUNDING

This work was supported by Bristol Myers Squibb (CV185-564) and the Florida Department of Health. FLiPER-AF is registered under ClinicalTrials.gov (NCT03627806).

## DISCUSSION

- AHA/ASA guidelines recommend  $\geq 24$  hours of cardiac rhythm monitoring after stroke/TIA; however, specific strategies regarding the type and duration of monitoring are lacking and clinical practice patterns vary widely.
- Patients  $> 80$  years of age and smokers were less likely to receive any prolonged ECG monitoring after stroke/TIA. This might be explained by the higher presence of large vessel atherosclerotic disease in smokers and higher prevalence of atrial fibrillation in older patients.
- Black race and moderate-to-severe stroke was associated with prolonged monitoring  $> 7$  days, yet lower odds of receiving an implantable cardiac monitor in-hospital. This might be explained by successful detection of AF with initial extended surface monitoring; however, this was not captured in our study.

## SUMMARY

Although 84% of patients received ECG monitoring during hospital admission for stroke/TIA, significant differences were found with respect to age, race/ethnicity and stroke severity across the various types and duration of cardiac monitoring.

## REFERENCES

- Edwards, J. D., et al. (2016). "Underutilization of Ambulatory ECG Monitoring After Stroke and Transient Ischemic Attack: Missed Opportunities for Atrial Fibrillation Detection." *Stroke* 47(8): 1982-1989.
- Kernan, W. N., et al. (2014). "Guidelines for the prevention of stroke in patients with stroke and transient ischemic attack: a guideline for healthcare professionals from the American Heart Association/American Stroke Association." *Stroke* 45(7): 2160-2236.
- Sposato, L. A., et al. (2015). "Diagnosis of atrial fibrillation after stroke and transient ischaemic attack: a systematic review and meta-analysis." *Lancet Neurol* 14(4): 377-387.



# INTRODUCTION



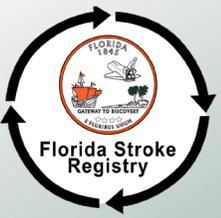
Guidelines recommend  $\geq 24$  hours of cardiac monitoring after cryptogenic stroke to identify a cardiac source, such as atrial fibrillation.

Specific strategies regarding the type and duration of cardiac monitoring are lacking and clinical practice patterns vary widely.

We sought to evaluate trends in the rate and type of prolonged ECG cardiac monitoring performed in-hospital after ischemic stroke and transient ischemic attack (TIA) across a large network of hospitals in Florida and Puerto Rico (PR), overall and by sex and race/ethnicity.



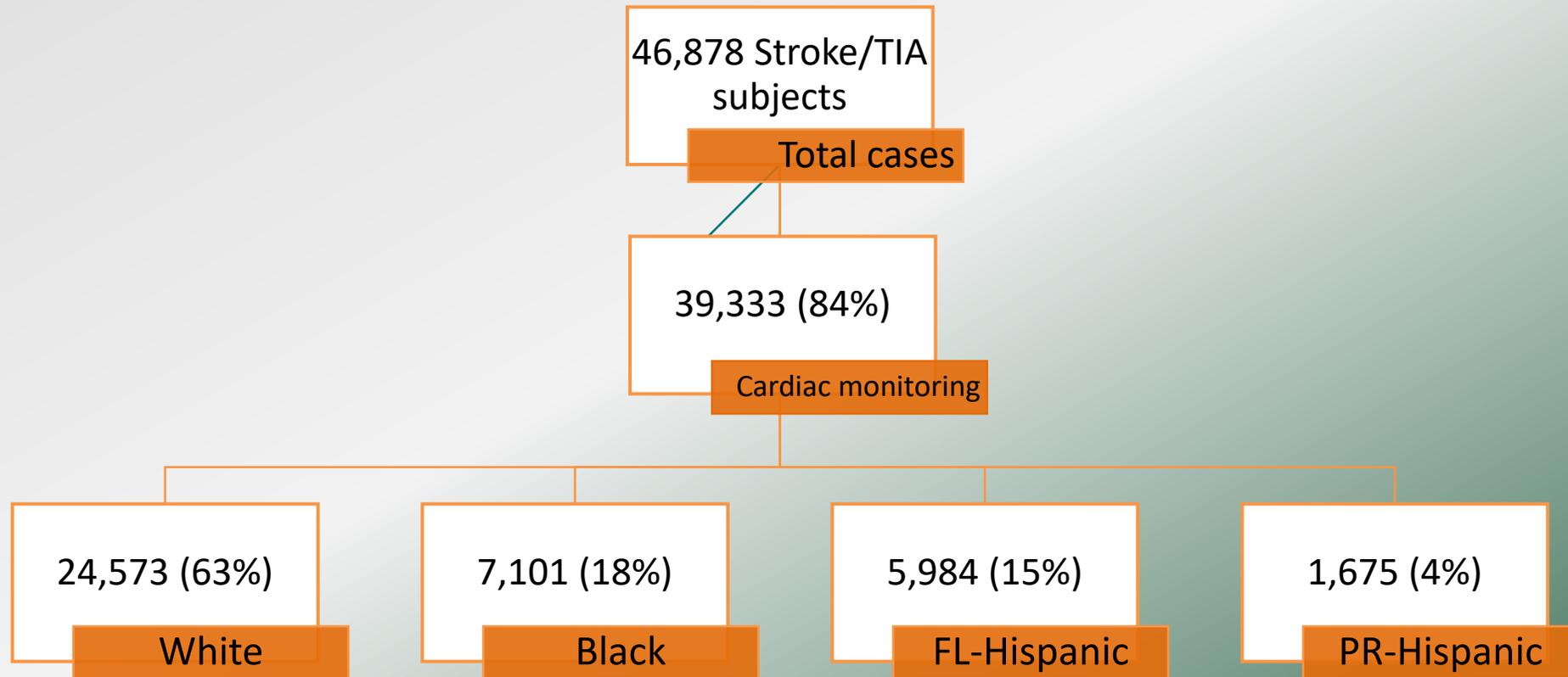
# HYPOTHESIS



We hypothesized that Hispanic and Black patients were less likely overall to receive prolonged cardiac monitoring during hospitalization for ischemic stroke/TIA compared to White patients.



# METHODS



**Figure 1.** Flow diagram of 46,878 stroke/TIA cases in the registry with data on in-hospital cardiac monitoring.

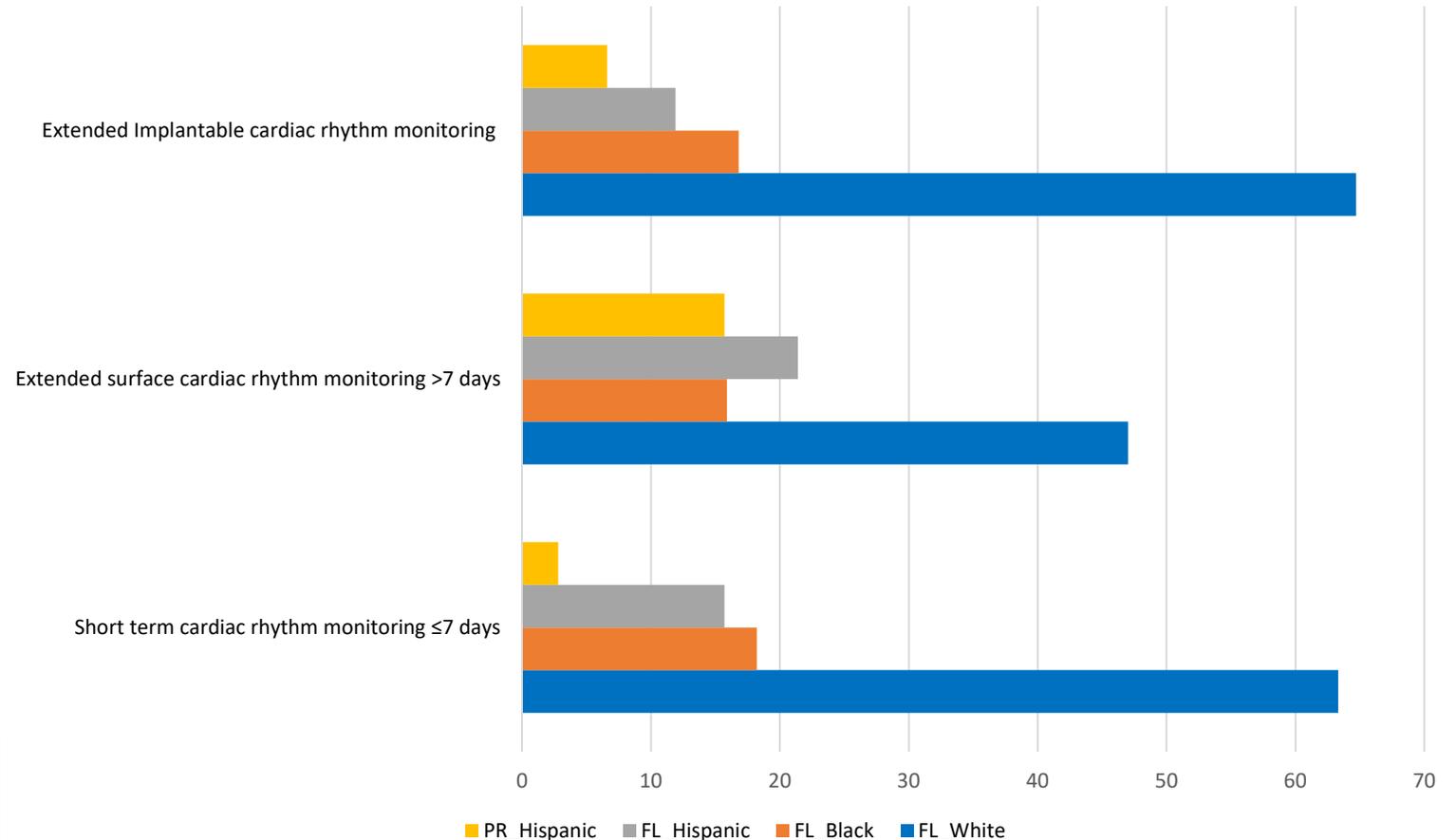
- Univariate analysis was performed to determine the overall rate of ECG monitoring and the characteristics of patients who received cardiac surface monitoring  $\leq 7$  days and  $> 7$  days, and implantable cardiac rhythm monitoring.
- Multivariate logistic regression was performed to identify factors associated with the various types of prolonged cardiac rhythm monitoring.



# RESULTS

- Overall, 39,333 (84%) patients admitted for stroke/TIA received ECG monitoring during hospital admission (mean age 71±14 years; 49% female).
- After adjustment, **smokers and patients age >80 years** were less likely to receive ECG monitoring overall (**OR 0.95, 95% CI 0.9-0.99 for both**).
- **Black race** was associated with receiving extended surface monitoring >7 days (OR 1.15, 95%CI 1.04-1.26) and negatively associated with implantable cardiac monitoring (OR 0.81, 95%CI 0.68-0.96).
- Patients with **moderate to severe stroke** had higher odds of extended surface monitoring >7days (OR 2.29, 95%CI 1.89-2.77), yet lower odds of implantable cardiac monitoring (OR 0.80, 95%CI 0.71-0.89).
- There were **no sex differences** observed.

**Figure 2.** Percentage of patients who received prolonged cardiac monitoring by type and race/ethnicity





# DISCUSSION



- AHA/ASA guidelines recommend  $\geq 24$  hours of cardiac rhythm monitoring after stroke/TIA; however, specific strategies regarding the type and duration of monitoring are lacking and clinical practice patterns vary widely.
- Patients  $>80$  years of age and smokers were less likely to receive any prolonged ECG monitoring after stroke/TIA. This might be explained by the higher presence of large vessel atherosclerotic disease in smokers and higher prevalence of atrial fibrillation in older patients.
- Black race and moderate-to-severe stroke was associated with prolonged monitoring  $>7$  days, yet lower odds of receiving an implantable cardiac monitor in-hospital. This might be explained by successful detection of AF with initial extended surface monitoring; however, this was not captured in our study.



# SUMMARY



Although 84% of patients received ECG monitoring during hospital admission for stroke/TIA, significant differences were found with respect to age, race/ethnicity and stroke severity across the various types and duration of cardiac monitoring.



## REFERENCES

- Edwards, J. D., et al. (2016). "Underutilization of Ambulatory ECG Monitoring After Stroke and Transient Ischemic Attack: Missed Opportunities for Atrial Fibrillation Detection." *Stroke* 47(8): 1982-1989.
- Kernan, W. N., et al. (2014). "Guidelines for the prevention of stroke in patients with stroke and transient ischemic attack: a guideline for healthcare professionals from the American Heart Association/American Stroke Association." *Stroke* 45(7): 2160-2236.
- Sposato, L. A., et al. (2015). "Diagnosis of atrial fibrillation after stroke and transient ischaemic attack: a systematic review and meta-analysis." *Lancet Neurol* 14(4): 377-387.

## FUNDING

This work was supported by Bristol Myers Squibb (CV185-564) and the Florida Department of Health. FLiPER-AF is registered under ClinicalTrials.gov (NCT03627806).