

Enhancing Quality of Care in Atrial Fibrillation Using Our Practice Advisories (OPA):

One Year Review

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BACKGROUND

Atrial fibrillation (AFib) poses a serious stroke risk, yet documentation gaps often leave critical decisions about anticoagulation unclear.

Individuals with AFib are nearly **5x** more likely to have a stroke than individuals without AFib¹

According to a retrospective study sponsored by PCORI and published in JAMA,

84%

of patients admitted to hospitals* with an acute ischemic stroke, a known history of AFib, and a prestroke CHA₂DS₂-VASc score ≥ 2 were **NOT receiving guideline-recommended therapeutic anticoagulation**²

According to the same PCORI study,

65.8%

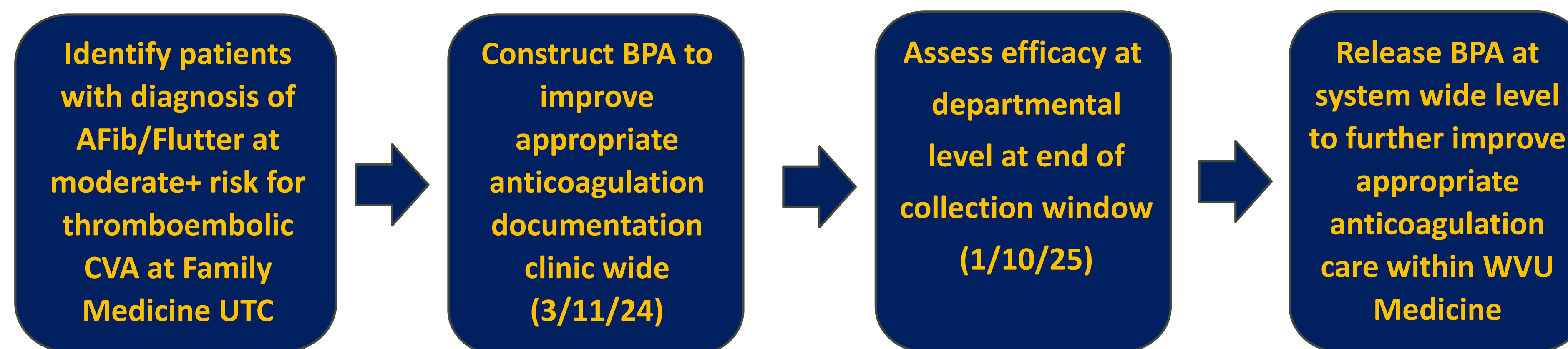
Of patients with a moderate-to-high risk of stroke did **not have documented reasons for not being treated with an anticoagulant**²

*Patients with a known history of Afib or atrial flutter who had experienced an acute ischemic stroke and were admitted from October 2012 through March 2015 to hospitals participating in the Get With the Guidelines-Stroke program

SMARTER OBJECTIVE

Improve documentation of non-anticoagulation decisions for AFib patients in an outpatient primary care clinic, exceeding a **34.2% benchmark** set by a New England Journal of Medicine Patient-Centered Outcomes Research Institute (PCORI) study. **This was achieved** using a targeted OPA tool for moderate-to-high risk AFib patients not on anticoagulation. The tool helped alert providers to at-risk patients and document reasons for non-anticoagulation. OPA calculated and provided CHA₂DS₂-VASc and HAS-BLED scores using rule-based logic to provide that data in real time.

IMPROVEMENT ACTION PLAN WITH ACTIONS TAKEN



STUDY DESIGN

The study was conducted at the WVU Department of Family Medicine (University Town Center). An OPA based on the CHA₂DS₂-VASc score was implemented between March 2023 and January 2025.

- CHA₂DS₂-VASc OPA: Alerts for anticoagulation in males with a score ≥ 2 and females with a score ≥ 3.
- Study Population: 164 patients with AFib from the Department of Family Medicine UTC clinic seen during the intervention period.
- Comparative Group: 58,084 AFib patients from the POCI study.

The OPAs provided real-time decision support, helping guide anticoagulation therapy based on individual risk factors (Figure 1). Providers were able to prescribe or better discuss anticoagulation therapy based on these automated alerts.

CHADS ₂ -VASc Risk Score	Risk of Stroke/TIA/Systemic Embolism (% year) **	HAS-BLED Score	Risk of Major Bleed (% year) **
0	0.3%	0	0.9%
1	0.9%	1	3.4%
2	2.9%	2	4.1%
3	4.6%	3	5.8%
4	6.7%	4	8.9%
5	10.0%	5	9.1%
6	13.6%	>5	-
7	15.7%	-	-
8	15.2%	-	-
9	17.4%	-	-

Figure 1- Workflow for the CHA₂DS₂-VASc Our Practice Advisory (OPA) for atrial fibrillation patients. Workflow starts as a sidebar notification and provides more data and options the more it is interacted with. This includes both the CHA₂DS₂-VASc and HAS-BLED scoring systems.

RESULTS

OPA Displayed: **164 patients**

- Acknowledgement reasons selected: **57**
- Higher bleeding risk than stroke risk: **17**
- New anticoagulation started: **6**
- Contraindication to anticoagulation added: **2**

OPA interaction alone **facilitated documented reasoning for not anticoagulating in 39.6% (65/164)** of cases during the study period.

The OPA display also had a **statistically significant impact on anticoagulation decisions** ($\chi^2 = 103.7293$, $P < 0.00001$).

Additionally, **DFM clinic anticoagulation rates increased from 67.1% (418/623) to 68.7% (451/657)** during the study period.

SCALE UP PLAN

In discussions/working with cardiology leadership and Cupid support team to disseminate to WVU Medicine at a system level within the following weeks/months.

SUSTAINABILITY PLAN

Feedback from family med & cardiology has already lead to minor changes in OPA appearance. The information from this system will be used to build registry data for future research and analytics to better help care for this vulnerable patient population.

LESSONS LEARNT

OPAs are an effective tool for educating clinicians, increasing awareness, and promoting the implementation of standard-of-care interventions.

Primary care providers feel more confident managing anticoagulation in atrial fibrillation when risk information is easily accessible and presented in real time.

Reasons for not initiating therapy can be documented more efficiently when tied to a simple acknowledgment process rather than relying solely on provider-entered documentation.

REFERENCES

P A Wolf, R. D. (1991). Atrial fibrillation as an independent risk factor for stroke: the Framingham Study. *Stroke*, 22(8), 983-988.

Ying Xian, M. P., Emily C. O'Brien, P., & Li Liang, P. (2017). Association of Preceding Antithrombotic Treatment With Acute Ischemic Stroke Severity and In-Hospital Outcomes Among Patients With Atrial Fibrillation. *JAMA*, 317(10), 1057-1067.