



QI/QA: Atrial Fibrillation Compliance with National Anticoagulation Guidelines in a Rural Primary Care Clinic

Kyle C. Varon OMS-III, Jill Cochran PhD, APRN, Emily Thomas D.O.

West Virginia School of Osteopathic Medicine, Lewisburg, WV

Background

Atrial fibrillation (Afib) is an arrhythmia that can lead to blood clots, stroke, heart failure and other heart-related complications. Currently, between 2.7-6.1 million Americans are living with Afib with prevalence expected to rise to 12.1 million in 2030 and 17.9 million in 2060.

Stroke Demographics:

- Strokes have an incidence of 795,000 cases per year in the United States
- Cerebrovascular disease prevalence was 42.4 million people in 2015.
- Direct and Indirect cost of stroke in 2018 was \$40.1 billion
- WV Ranks 45th in death rates for CVD, CHD, and stroke

State	CVD			CHD			Stroke		
	Rank	Death Rate	% Change, '03-'05 to '13-'15	Rank	Death Rate	% Change, '03-'05 to '13-'15	Rank	Death Rate	% Change, '03-'05 to '13-'15
West Virginia	45	258.8	-26.6	46	120.8	-34.7	44	43.3	-23.3
Ohio	40	247.5	-22.1	44	111.6	-33.8	38	40.2	-24.4
Pennsylvania	36	229.9	-25.1	34	102.5	-35.7	33	37.6	-25.0
North Carolina	31	221.8	-27.4	26	94.6	-35.8	45	43.4	-30.3
Maryland	32	222.5	-25.1	32	101.0	-37.2	29	37.3	-27.7
Virginia	26	208.5	-28.1	15	84.5	-35.7	34	37.8	-33.5

Table 1: Age-Adjusted Death Rates per 100,000 population for CVD, CHD, and Stroke by State, 2013 to 2015. Table adapted from Table 12-2 page e252 of the AHA heart disease and stroke statistics.

Objectives

- Assess the compliance rate of anticoagulation use for patients with atrial fibrillation according to national standards
- Identify barriers preventing clinical education and evidence-based medical practices
- Assess the potential value of a quality improvement intervention aimed at increasing compliance rate with national standards

Methods

184 patient charts were reviewed during the time period from October 1, 2018 until May 15, 2019 using any diagnosis code that contained “atrial fibrillation”. Of those, 32 charts were excluded due to the following: deceased patient or deactivated status.

Charts were evaluated for compliance using the 2014 AHA/ACC Guidelines on atrial fibrillation:

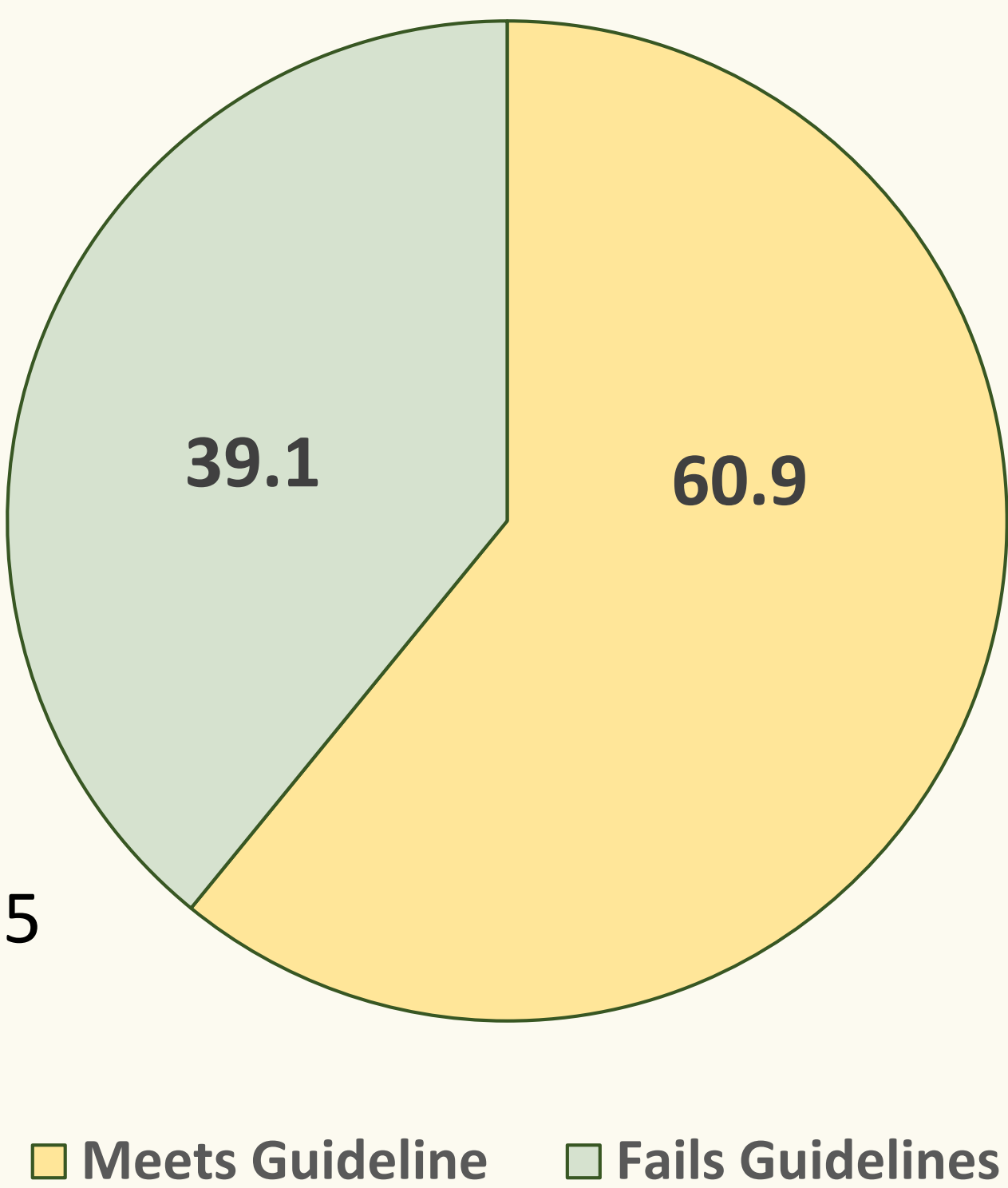
- Antiplatelet agents if CHA₂DS₂VASc score of 1
- Anticoagulation if CHA₂DS₂VASc score ≥ 2

Results

A total of 152 patient charts were reviewed.

- Of the charts reviewed, (93/152) 60.9% met guideline goals for treatment
- The calculated compliance rate included patients not on medications with a clearly documented contraindication.

2014 Guideline Compliance



Average Age – 74.2
Sex: Males – 79; Females – 73
CHA₂DS₂VASc average score – 3.5
CHA₂DS₂VASc mode – 3

Discussion

WV ranks 45th in the United States for stroke deaths. Stroke prevention is necessary to improve the health of our state and clinic population. CHA₂DS₂VASc scores correlate directly with stroke risk per year for patients with atrial fibrillation. Furthermore, patients with atrial fibrillation require annual recalculation of their score to better provide appropriate stroke prophylaxis. In addition to risk calculation, providers are responsible for staying up-to-date on current guidelines.

Future Directions

- Develop an intervention program to educate providers of their compliance rate
- Provide the clinic with various resources for enhancing patient education and compliance rate
- Assess provider compliance with guidelines following a post-intervention period

Conclusion

Further work at the community level is required to ensure patients with atrial fibrillation are receiving risk calculations and are being medically managed in a manner congruent with current national guidelines.

Works Cited

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