Evaluating the Implementation of the 2018 CHEST Guidelines in Veteran Patients Treated With Anticoagulation Therapy for Atrial Fibrillation

Authors: Joanna Duda, PharmD Candidate; Lorin Wise, PharmD Candidate; Laura Perry, PharmD, R.Ph., BCPS; Suzanne Surowiec, PharmD, R.Ph., BCACP; Carol Ingle, PharmD, R.Ph., BCACP

University of Findlay

VA | U.S. Department of Veterans Affairs

Introduction

Atrial fibrillation (AF) is a cardiovascular disease affecting approximately 2.7 million Americans and is classified as an irregular heartbeat (arrhythmia) leading a 5-fold increase in the risk of stroke. To mitigate stroke risk in patients with AF, the 2018 CHEST guideline recommends aspirin, VKA agents (e.g. warfarin), or Novel Oral Anticoagulants (NOACs), such as apixaban, rivaroxaban, dabigatran, and edoxaban. To assess the risk of thrombosis in patients with AF, a CHA_2DS_2-VASc score is calculated. Anticoagulant therapy is preferred over asprin if the CHA_2DS_2-VASc score is ≥ 2 in males or ≥ 3 in females. Additionally, a HAS-BLED score can be used to assess the risk of bleeding in patients receiving anticoagulation therapy. Patients with a HAS-BLED score of ≥ 3 should recieve more frequent follow-up, consisting of monitoring for bleeding, bruising, hematuria, etc.

Our study aims to evaluate use of the CHA2DS2-VASc and HAS-BLED score in patients at the Louis Stokes Veterans Affair Medical Center Anticoagulation Clinic in Cleveland, OH who were receiving apixaban for anticoagulation therapy. Patients receiving apixaban for atrial fibrillation anticoagulation therapy were evaluated because apixaban has been associated with less bleeding risk and also has been approved in the US for AF patients receiving hemodialysis.

Primary Objective

To evaluate the utilization of the HAS-BLED score and assess follow-up frequency.

Secondary Objective

To determine whether the patient's risk of a major bleed (HAS-BLED) is higher than the patient's need for anticoagulation.

Methods

Study Design

- Retrospective chart review conducted with a convenient sample.
- Data was collected at the Louis Stokes Cleveland VA's Anticoagulation Clinic from June 2019 to August 2019.

Inclusion Criteria

- Atrial fibrillation
- Apixaban therapy twice daily for at least 1 year

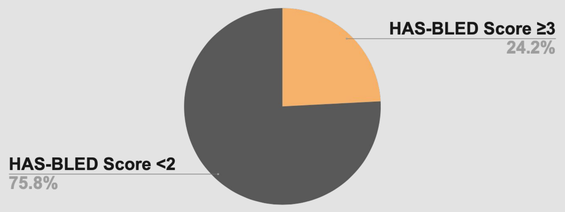
Exclusion Criteria

- Other NOAC or warfarin

Demographics

Total Patients	91
Male	88 (96.7%)
Age 65-74	41 (45.1%)
Age ≥75	38 (41.8%)
History of Bleeding	15 (16.4%)
History of Stroke	9 (9.9%)

HAS-BLED Score Distribution



Results

Monitoring Frequency

- It was found that none of the patients had a documented HAS-BLED score.
- 1.1% of all patients were following up every 3 months.
- The rest of the sample size were monitored every 6 months.
- Monitoring frequency was similar between patients with HAS-BLED scores < 3 and ≥3.

Patients with HAS-BLED score ≥3

Discussion

This study found that, while providers routinely calculated the CHA2DS2-VASc score, no patient had a documented HAS-BLED score. Any patient with a HAS-BLED score ≥ 3 was assessed for anticoagulation need, and a CHA2DS2-VASc score of ≥ 2 met this requirement, so our study revealed that 100% of patients with a HAS-BLED score ≥ 3 met the criteria to receive anticoagulation therapy. Although the updated guidelines recommend more frequent monitoring for patients with a HAS-BLED score of ≥ 3, this is not being implemented.

A few weaknesses of this study include convenience sampling, all male patients, restriction to apixaban, and multiple confounding factors: it was not clearly documented if patients were also receiving aspirin therapy, taking over-the-counter products, or if they regularly consumed alcohol, all of which could have an effect on bleeding risk.

Conclusion

Providers have not yet implemented the HAS-BLED score or individualized monitoring plans for patients at high risk of bleeding at this anticoagulation clinic. Pharmacists have an opportunity to educate providers on the utility of the HAS-BLED score as an additional tool to determine risk versus benefit of anticoagulation therapy.

References

1. Lip GY, Banerjee A, Boriani G, Chiang CE, Fargo R, Freedman B, et al. Antithrombotic Therapy for Atrial Fibrillation. Chest. 2018;154(5):1121–201.
2. HAS-BLED Tool – What is the Real Risk of Bleeding in Anticoagulation? [Internet]. American College of Cardiology. [cited 2020Mar26]. Available from: https://www.acc.org/latest-in-cardiology/articles/2014/07/18/15/13/has-bled-tool-what-is-the-real-risk-of-bleeding-in-anticoagulation
3. What is Atrial Fibrillation (AFib or AF)? [Internet]. www.heart.org. [cited 2020Mar26]. Available from: https://www.heart.org/en/health-topics/atrial-fibrillation/what-is-atrial-fibrillation-afib-or-af