Assessing Optimization of Provider-Initiated DOAC Stroke Prophylaxis in Patients Diagnosed with Atrial Fibrillation

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INTRODUCTION

The 2018 Antithrombotic Therapy For Atrial Fibrillation CHEST Guideline and Expert Panel Report recommends anticoagulation in patients with non-valvular atrial fibrillation at high risk for stroke.[1] However, anticoagulation is sometimes avoided in patients perceived to have a high bleeding risk. CHEST recommends management of bleeding risk factors as well as frequent re-evaluation of stroke and bleed risks as opposed to avoiding anticoagulation altogether. For patients who are deemed to be at low risk for stroke or high risk for bleeding at the time of diagnosis, there should be an ongoing re-evaluation process to determine if it is appropriate to start anticoagulation. A lack of re-evaluation may lead to new risk factors for stroke going unaddressed, leading to an increased risk of morbidity and mortality in patients with atrial fibrillation who are not on direct oral anticoagulant (DOAC) therapy.

OBJECTIVE

The purpose of the current study is to assess the appropriateness of Desert Oasis Healthcare (DOHC) physician-initiated stroke prophylaxis with DOACs in atrial fibrillation patients per CHEST Guidelines and initiate interventions in patients with qualifying CHA_2DS_2-VASc scores not currently on DOAC therapy.

METHODS

Data for 3,615 patients with atrial fibrillation was extracted from a database consisting of medical and pharmacy claims made by primary care physicians (PCPs), hospital visits, and health insurances within the DOHC network between January 1, 2021 and December 31, 2021. Of this population, 1,381 patients were selected for the study based on the presence of CHA_2DS_2-VASc scores of ≥ 2 in males or ≥ 3 in females. A secondary search of DOHC's electronic health records, including NextGen, Arine, and qHMO, was conducted to confirm the diagnosis of atrial fibrillation.

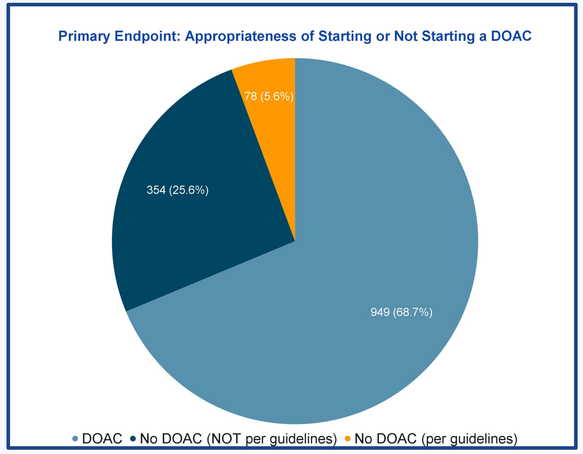
Primary Endpoints:

- Percentage of patients who were anticoagulated or not anticoagulated by DOHC providers at the time of diagnosis in accordance with the 2019 AHA/ACC/HRS Focused Update of the 2014 Guideline for the Management of Patients with Atrial Fibrillation

Secondary Endpoints:

- Rate of cerebrovascular events occurring in patients who were anticoagulated versus not anticoagulated
- Number of non-anticoagulated patients who are recommended to be on anticoagulants at the present time per guidelines
- Number of interventions for non-anticoagulated patients that Clinical Pharmacists were able to achieve.
- Distribution of reasons for why patients were appropriately not started on anticoagulation therapy with a DOAC
- Distribution of reasons why DOAC therapy was discontinued in patients who were appropriately started at the time of diagnosis

RESULTS

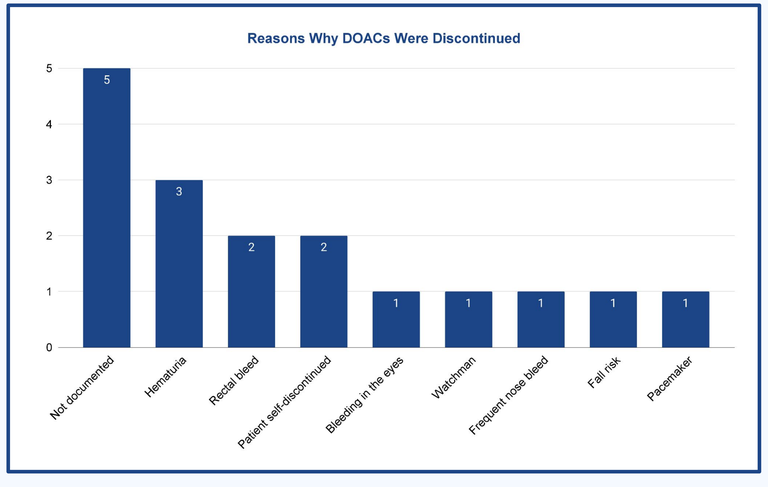


2 patients who were not anticoagulated had a **stroke**

385 interventions needed to initiate **stroke risk re-evaluation**

Appropriate Reasons for Not Starting DOACs	Prevalence
Non-qualifying CHA_2DS_2-VASc score	28/135 (21%)
Started on warfarin	18/135 (12%)
Anemia	9/135 (7%)
GI bleed	6/135 (4%)
Unspecified bleeding	4/135 (3%)
Thrombocytopenia	4/135 (3%)
Rectal bleed	2/135 (1%)
Hematuria	2/135 (1%)
Unable to tolerate	2/135 (1%)
Hematoma	1/135 (1%)
History of ICH	1/135 (1%)
Recommended by neurosurgery not to start	1/135 (1%)

Reasons Why DOACs Were Started Long After Diagnosis	Prevalence
Different provider re-evaluated patient	12/23 (52%)
New AFib episode	5/23 (22%)
Not documented	2/23 (9%)
New DVT	1/23 (4%)
New stroke	1/23 (4%)
New STEMI	1/23 (4%)
Patient request	1/23 (4%)



DISCUSSION

In the 1,381 patients with a confirmed diagnosis of atrial fibrillation and qualifying CHA_2DS_2-VASc scores, 68.7% of patients were appropriately started on a DOAC at the time of diagnosis, 25.6% were not on a DOAC with no underlying reason documented, and 5.6% were not on a DOAC due to appropriate reasons. The most common reason why patients were not started on a DOAC at the time of diagnosis was due to a CHA_2DS_2-VASc score associated with a low risk of stroke.

Although the initial decision to withhold DOAC therapy may have been appropriate at the time, these patients were not reassessed periodically to calculate updated CHA_2DS_2-VASc scores and reassess risk factors preventing safe DOAC utilization. Those who were not started on a DOAC due to active bleeding, anemia, or other appropriate reasons should have been reassessed after resolution of the problem.[2] Two patients who were not re-evaluated and were not on anticoagulants experienced a stroke; one patient agreed to stroke management services by a Clinical Pharmacist. Currently, 55% of the patients who are not on a DOAC will require an intervention to ensure the continuous re-evaluation of their stroke risks. To optimize patient care and address gaps in therapy, Clinical Pharmacists will be responsible for sending recommendations to PCPs for the patients evaluated in this study.

A limitation of this study is that the data was collected retrospectively, so the information obtained was limited to what was available in the electronic health records. There is a possibility that the providers did have appropriate reasons for patients to not be on DOACs at the time of diagnosis but did not document the reasons in their notes. Additionally, our conclusions are drawn solely based on whether patients were being started on an anticoagulant per guideline recommendations. It does not take into account the shared clinical decision making involved when analyzing the risk of bleeding versus the risk of having a stroke.

CONCLUSION

Physicians should frequently reassess patients with atrial fibrillation for whom anticoagulants are not appropriate at one point in time. Fall risks and bleeding risks may be transient for some patients if they are induced by certain medications or if a patient is afflicted with a certain condition. Patients who refuse anticoagulation should be thoroughly educated on the risks and benefits of anticoagulants and the consequences of strokes versus bleeds. Patients who are newly diagnosed with atrial fibrillation may also be referred for evaluation by Clinical Pharmacists working under collaborative practice agreements to determine if initiation of anticoagulation is appropriate and manage chronic disease states such as hypertension and hyperlipidemia to reduce stroke-related morbidity and mortality. Improved documentation of these re-evaluations is also essential to ensure continuity of care.

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