# Understanding Anticoagulation Decisions in Atrial Fibrillation

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# Understanding Anticoagulation Decisions in Atrial Fibrillation

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## Background

- **Atrial fibrillation (AF)** is an abnormal heart rhythm defined by irregular, uncoordinated beating of the atria[1]
- AF disrupts cardiac blood flow, leading to the formation of thrombi that can then embolize, occluding cerebral blood flow[2]
- Untreated AF confers a fivefold increased risk of ischemic stroke[3]
- Treatment with anticoagulant medication reduces stroke risk; but increases bleeding risk[4,5]
- Evidence-based guidelines exist to inform treatment decisions[5].
- Only a fraction of eligible patients receive appropriate treatment in accordance with guidelines[6]

## Problem Statement

The purpose of the present study is to assess, via review of physician-authored medical documentation, the **reasons for prescriber avoidance of anticoagulation** in patients with histories of both atrial fibrillation and stroke, and the clinical characteristics of these patients.

## Methods

- Retrospective chart review of current LVHN patients
- **Inclusion criteria**:
  - History of atrial fibrillation
    - ICD-10: I48.0 – I48.4, I48.9
    - Documented diagnostic evidence of AF
  - History of stroke
    - ICD-10: I63.0 – I63.9
- **Exclusion criteria:**
  - Currently prescribed oral anticoagulant medication (OAC)
  - Less than one month of documented clinical history
  - Greater than twelve months since last documented clinical encounter

## Results

- Demographics
  - 205 of 526 patients eligible for inclusion
  - Mean age of 81 years
  - 54% female

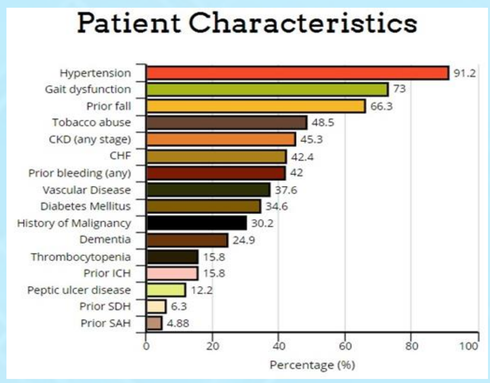


**Table 1**: Patient Characteristics - Comorbidities of patient population
**CKD:** *Chronic Kidney Disease*, **CHF:** *Congestive Heart Failure*, **ICH:** *Intracerebral hemorrhage*, **SDH:** *Subdural hematoma*, **SAH:** *Subarachnoid hemorrhage*

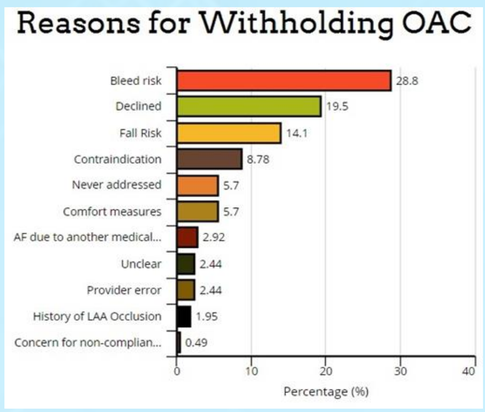


**Table 2**: Reasons for Withholding OAC Medication.
**LAA:** *Left atrial appendage*, **Declined:** *Patient or caregiver declined treatment*, **Comfort measures:** *End-of-life or hospice care*, **AF due to another medical…:** *AF due to specific time-limited or treatable condition*

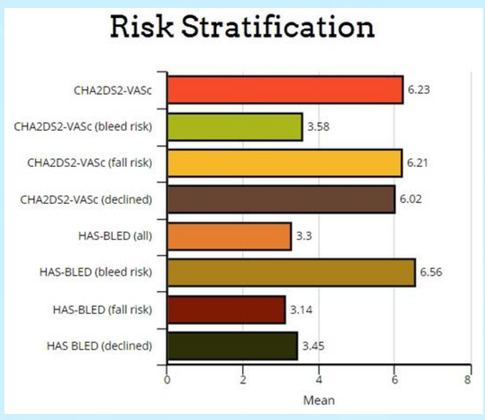


**Table 3**: Risk Stratification
*Compares $CHA_2DS_2$-VASc and HAS-BLED scores of patients deemed bleed risks, fall risks, and those who declined treatment with the cohort as a whole.*

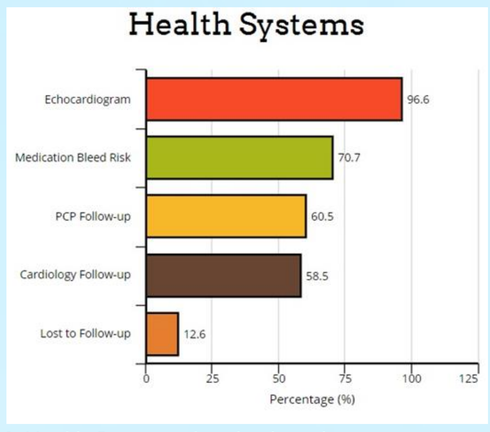


**Table 4**: Health System-related cohort data
**Echocardiogram:** *Percentage of patients receiving echocardiogram within 6 months of AF diagnosis*, **Medication Bleed Risk:** *Percentage of patients on medications that increase bleed risk*, **PCP Follow-up:** *Percentage of patients who follow-up with a primary care provider (PCP) following AF diagnosis*, **Cardiology Follow-up:** *Percentage of patients seen by outpatient cardiology following AF diagnosis* **Lost to Follow-up:** *Percentage of patients with no documented clinical encounters for 60 days following their last encounter*

## Discussion

- Plurality of patients *(42.9%)* denied OAC due to bleed or fall risk
  - Inconsistent with current guidelines
  - Modifiable risk factors
  - Targets for physician- and patient-directed educational interventions
- Physicians have legitimate concerns and are accurately identifying patients at higher risk of bleeding
  - Increased use of shared decision making may assist proper navigation of risks / benefits of OAC
- Low usage rate of left atrial appendage occlusion surgery

## Conclusions

- Both OAC treatment and withholding carry the potential for catastrophic outcomes
- The gravity of this decision requires special attention to patient education and involvement in the decision-making process, including:
  - Shared-decision making tools
  - Visual aids for patient education
  - Usage of composite risk / benefit, “Net clinical benefit,” measures in both physician and patient-directed education

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