Anticoagulation Treatment in High-Risk Medicare Advantage Patients with Non-Valvular Atrial Fibrillation

**Background**

Atrial fibrillation (AF) is estimated to affect more than 3 million people in the U.S. and is responsible for more than 15% of all strokes, more than $36 billion in direct treatment costs, and an economic burden in excess of $34 billion annually. In addition, strokes related to atrial fibrillation are estimated to have direct costs approximating $8 billion annually. A recent post hoc analysis of all novel oral anticoagulants (NOACs) demonstrated the effectiveness of oral anticoagulants for the prevention of stroke and different profiles of major bleeding risk relative to warfarin. Despite evidence of the effectiveness of oral anticoagulants for the prevention of stroke, use of warfarin and the NOACs is not optimal, particularly in patients with NVAF.

**Objective**

To examine anticoagulation (AC) treatment in Medicare Advantage Prescription Drug (MAPD) plan members diagnosed with non-valvular atrial fibrillation (NVAF) and at high risk for stroke.

**Methods**

**NVAF and Treatment Prevalence Analysis**

- A retrospective analysis of claims data from a large US health plan was conducted.
- Members with NVAF (ICD-9-CM code 427.3) were identified between 12/31/2011 and 11/30/12, and monthly treatment rates for anticoagulants were calculated.

**NVAF Outcomes Population Analysis**

Further analyses were conducted for NVAF patients with an index date (date of NVAF diagnosis) between 12/1/2011 and 11/30/2012 to allow for the application of continuous enrollment criteria and assessment of outcomes (Figure 1).

**Exclusion Criteria**

- Continuous enrollment of at least 6 months pre-index and at least 12 months post-index.
- Any indication for valvular involvement within the study period.

**Results**

- **Figure 2. Monthly Prevalence for NVAF and Anticoagulant Use (Warfarin and NOAC)**
  - Almost 300,000 Humana patients (~6% of MAPD membership) with NVAF were identified.
  - Warfarin usage is still the dominant treatment choice, but its use is steady declining while NOACs remain steadily increasing.
  - Only ~37% of NVAF patients receive anticoagulant treatment.

- **Figure 3. Demographic Characteristics of Members in NVAF Outcomes Population**
  - A cohort of 93,846 NVAF patients was identified with sufficient INR data.
  - The vast majority have multiple risk factors for stroke according to CHADS2 risk scoring.

- **Figure 4. Clinical Characteristics of Members in NVAF Outcomes Population**
  - Of the 93,844 NVAF patients with NVAF, 70,466 (75.3%) were identified as high risk for stroke (CHADS2 ≥ 2, 39,707 (42.4%) had 3 or more risk factors.
  - The vast majority have multiple risk factors for stroke according to CHADS2 risk scoring.
  - Estimating risk of bleeding using a modified HASBLED risk scoring tool also showed that higher risk levels were found in patients with NVAF.

**Discussion**

- **The mean AC treatment rate in the entire NVAF cohort was only 37.0%**. The introduction of NOACs did not appear to result in an increase of the overall percent treated, but rather a switch of treatment from warfarin among those being treated to NOACs.
- A diagnosis of NVAF and a high risk of stroke was not associated with the use of anticoagulants. The use of major anticoagulants for prophylactic treatment with AC and careful management, yet a large proportion of the patients at high risk for stroke were untreated or potentially undertreated as evidenced by the low TTR values and low adherence estimates observed here (Figure 5).

**Limitations**

- This study utilized data from Humana members only and their providers, the results may not be generalized to a broader patient population of individuals with NVAF or their providers. However, Humana is a national health plan with members residing in a broad array of geographic regions.
- Anticoagulants were not included. OTC purchases are not captured in the pharmacy claims data. Also, some of those NVAF patients identified as untreated may actually be receiving treatment.

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**References**