

## 014. Comparative Effectiveness and Safety between Non-VKA Oral Anticoagulants in Non-valvular Atrial Fibrillation Patients: A Dose Subgroup Analysis of the ARISTOPHANES Study

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### Purpose

This subgroup analysis of the ARISTOPHANES (Anticoagulants for Reduction In STroke: Observational Pooled analysis on Health outcomes ANd Experience of patientS) study aimed to use multiple data sources to compare S/SE, MB, and their respective components among non-valvular atrial fibrillation (NVAf) patients prescribed NOACs stratified by index dosage.

### Methods

A retrospective observational study of NVAf patients initiating apixaban, dabigatran, rivaroxaban, or warfarin from 01/01/2013- 09/30/2015 was conducted using CMS Medicare data and four other US commercial claims databases, covering >180 million beneficiaries annually (~56% of US population). After propensity score matching (PSM) in each database between standard-dose NOACs (5mg BID apixaban-150mg BID dabigatran, 5mg BID apixaban-20mg QD rivaroxaban, and 150mg BID dabigatran-20mg QD rivaroxaban) and lower-dose NOACs (2.5mg BID apixaban-75mg BID dabigatran, 2.5mg BID apixaban-10 or 15mg QD rivaroxaban, and 75mg BID dabigatran-10 or 15mg QD rivaroxaban), the resulting patient records were pooled. Cox models were used to estimate hazard ratios of S/SE and MB (identified by inpatient claims). S/SE included ischemic stroke, hemorrhagic stroke, and SE; MB included gastrointestinal (GI) bleeding, intracranial hemorrhage (ICH), and other MB.

### Results

Patients initiating lower- and standard-dose NOACs had different baseline characteristics, including age and renal disease. Standard-dose apixaban patients had a similar rate of S/SE but a lower rate of MB versus standard-dose dabigatran; lower-dose apixaban patients had a lower rate of S/SE and MB versus lower-dose dabigatran. In both standard and lower dose analyses, apixaban was associated with a lower rate of S/SE and MB compared to rivaroxaban. Compared to standard-dose rivaroxaban, standard-dose dabigatran was associated with a similar rate of S/SE and lower rate of MB. Lower-dose dabigatran was associated with a higher rate of S/SE and similar rate of MB compared to lower-dose rivaroxaban.

**Conclusions**

Among NVAf patients, both standard- and lower-dose apixaban patients had lower rates of MB compared to corresponding doses of dabigatran and rivaroxaban, respectively; both doses of apixaban also demonstrated lower rates of S/SE versus corresponding doses of rivaroxaban, respectively. The comparisons between dabigatran and rivaroxaban showed varying results for S/SE and MB across dosage levels. Dose selection criteria cannot be ascertained from the current data sources. Future studies of patients who were appropriately dosed are warranted.