Real world persistence with direct oral anticoagulants in anticoagulation naive patients with atrial fibrillation

Authors: G Denas¹, G Costa², E Ferroni³, N Gennaro³, U Fedeli³, MC Corti³, G Zoppellaro⁴, S Padayattil Jose¹, V Pengo¹, ¹University Hospital of Padua, Department of Cardiac, Thoracic and Vascular Sciences - Padua - Italy, ²Provincial Authority for Health Services - Trento - Italy, ³Epidemiological Department (SER) - Padua - Italy, ⁴Hospital S.Giovanni e Paolo - Venezia - Italy,

Topic(s): Anticoagulants

Citation: Introduction: Anticoagulation therapy is central for the management of stroke in patients with non-valvular atrial fibrillation (NVAF). Persistence with oral anticoagulation is essential to prevent thromboembolic complications.

Purpose: to assess persistence levels of DOACs and look for possible predictors of treatment discontinuity in NVAF patients.

Methods: We performed a population-based retrospective cohort study in the Veneto Region (north-eastern Italy, about 5 million inhabitants) using the regional health system databases. Naive patients initiating direct oral anticoagulants (DOACs) for stroke prevention in NVAF from July 2013 to September 2017 were included in the study. Patients were identified using Anatomical Therapeutic Chemical (ATC) codes, excluding other indications for anticoagulation therapy using ICD-9CM codes. Treatment persistence was defined as the time from initiation to discontinuation of the therapy. Baseline characteristics and comorbidities associated to the persistence of therapy with DOACs were explored by means of Kaplan-Meier curves and assessed through Cox regression.

Results: Overall, 17920 patients initiated anticoagulation with DOACs in the study period. Most patients were older than 74 years old, while gender was almost equally represented. Comorbidities included hypertension (72%), diabetes mellitus (17%), congestive heart failure (9%), previous stroke/TIA (20%), and prior myocardial infarction (2%). After one year, the persistence to anticoagulation treatment was 82.7%, while the persistence to DOAC treatment was 72.9% with about 10% of the discontinuations being due to switch to VKAs. On multivariate analysis, factors negatively affecting persistence were female gender, younger age (<65 years), renal disease and history of bleeding. Conversely, persistence was better in patients with hypertension, previous cerebral ischemic events, and previous acute myocardial infarction. Conclusion: This real-world data show that within 12 months, one out of four anticoagulation-naive patients stop DOACs, while one out of five patients stop anticoagulation. Efforts should be made to correct modifiable predictors and intensify patient education.
Abstract: Real world persistence with direct oral anticoagulants in anticoagulation naive patients with atrial fibrillation

Authors: G Denas, G Costa, E Ferroni, N Gennaro, U Fedeli, MC Corti, G Zoppellaro, S Padayattil Jose, V Pengo

1 University Hospital of Padua, Department of Cardiac, Thoracic and Vascular Sciences - Padua - Italy, 2 Provincial Authority for Health Services - Trento - Italy, 3 Epidemiological Department (SER) - Padua - Italy, 4 Hospital S.Giovanni e Paolo - Venezia - Italy,

Topic(s): Anticoagulants

Citation: Introduction: Anticoagulation therapy is central for the management of stroke in patients with non-valvular atrial fibrillation (NVAF). Persistence with oral anticoagulation is essential to prevent thromboembolic complications.

Purpose: to assess persistence levels of DOACs and look for possible predictors of treatment discontinuity in NVAF patients.

Methods: We performed a population-based retrospective cohort study in the Veneto Region (north-eastern Italy, about 5 million inhabitants) using the regional health system databases. Naïve patients initiating direct oral anticoagulants (DOACs) for stroke prevention in NVAF from July 2013 to September 2017 were included in the study. Patients were identified using Anatomical Therapeutic Chemical (ATC) codes, excluding other indications for anticoagulation therapy using ICD-9CM codes. Treatment persistence was defined as the time from initiation to discontinuation of the therapy. Baseline characteristics and comorbidities associated to the persistence of therapy with DOACs were explored by means of Kaplan-Meier curves and assessed through Cox regression.

Results: Overall, 17920 patients initiated anticoagulation with DOACs in the study period. Most patients were older than 74 years old, while gender was almost equally represented. Comorbidities included hypertension (72%), diabetes mellitus (17%), congestive heart failure (9%), previous stroke/TIA (20%), and prior myocardial infarction (2%). After one year, the persistence to anticoagulation treatment was 82.7%, while the persistence to DOAC treatment was 72.9% with about 10% of the discontinuations being due to switch to VKAs. On multivariate analysis, factors negatively affecting persistence were female gender, younger age (<65 years), renal disease and history of bleeding. Conversely, persistence was better in patients with hypertension, previous cerebral ischemic events, and previous acute myocardial infarction.

Conclusion: This real-world data show that within 12 months, one out of four anticoagulation-naïve patients stop DOACs, while one out of five patients stop anticoagulation. Efforts should be made to correct modifiable predictors and intensify patient education.