

Antiarrhythmic Medication for Atrial Fibrillation (AIM-AF) study: A physician survey of antiarrhythmic drug (AAD) treatment practices and guideline adherence in the EU and USA

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Introduction: The 2020 European Society of Cardiology and the 2019 USA (AHA/ACC/HRS) guidelines recommend the use of AADs for rhythm control in patients with symptomatic AF. This study sought to understand AAD treatment practices and adherence to guidelines across the EU and the USA.

Method: An online physician survey of cardiologists, cardiac electrophysiologists and interventional electrophysiologists (N = 569) was conducted in the USA, Germany, Italy and the UK. All respondents were actively treating ≥ 10 AF patients who received drug therapy and/or who had received or were referred for ablation. This extensively detailed survey explored questions on physician demographics, AF types, and drug treatment and ablation practices.

Results: Of the responses obtained: (1) Amiodarone was used frequently across co-morbidity categories (highest use in those with heart failure with reduced left ventricular ejection fraction [LVEF] [80%]), including in those in which it is not indicated for initial therapy (minimal or no structural heart disease: 26%). Other deviations from guideline recommendations, include: class 1C drugs were used with structural heart disease, including coronary artery disease (CAD) (average class 1C use in CAD-related comorbidities: 6%); sotalol was used with renal dysfunction (22%); and drugs such as sotalol and dofetilide were initiated out of hospital (56% and 17% of respondents, respectively). (2) Nonetheless, a majority of respondents (53%) considered guidelines as the most important non-patient factor in influencing their choice of AF management. (3) Rhythm control was selected more frequently as primary therapy for paroxysmal AF (PAF) (59% of patients) while rate control was used more often for persistent AF (53%). (4) For PAF, AADs were preferred as 1st line more often than ablation, especially if PAF was infrequent and mildly symptomatic (59% of respondents) while ablation was preferred more if frequent symptomatic PAF and for recurrent persistent AF. (5) Rhythm control (AAD or ablation) was chosen in notable numbers for asymptomatic AF and subclinical AF (AADs: 36% and 37%, respectively; ablation: 9% and 14%, respectively). (6) AAD use for those with a first or recurrent episodes of symptomatic AF was 60% or 47%, respectively. (7) Efficacy and safety were chosen as the most important considerations for choice of specific rhythm control therapy (49% and 33%, respectively), and reduction of mortality and cardiovascular hospitalisation (23%) were as important as maintaining sinus rhythm (26%) for rhythm therapy goals.

Conclusions: Although surveyed clinicians consider guidelines important, deviations in patient types and treatments chosen that compromise safety or were not indicated were common. Findings suggest a lack of understanding of the pharmacology and safe use of AADs, highlighting an important need for further education.

Abstract Figure.

Figure. Average usage based on inappropriate use of AADs or ablation in specific patient types.

(*Percentage based on mean usage of either Class 1C drug in a co-morbidity category; **CAD category based on average usage values from the categories: myocardial ischaemia without prior MI; revascularised CAD; recent or old MI); LVH; left ventricular hypertrophy; MI, myocardial infarction; SHD; structural heart disease. Bracketed data denotes US/EU usage

