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## Regional registries on the management of atrial fibrillation

*Essential pieces in the global puzzle*

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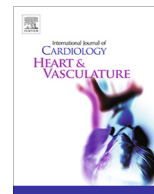
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## Editorial

## Regional registries on the management of atrial fibrillation: Essential pieces in the global puzzle



Over the last decades our knowledge in the field of atrial fibrillation (AF) has been greatly improved. Undoubtedly, double-blinded randomized clinical trials (RCT) are the cornerstone of high-quality, “gold standard” evidence informing optimal AF management but, owing to the RCT-specific strict enrolment criteria, intensive monitoring and comparable study populations, the generalisability of RCT results to everyday clinical practice may be limited since this type of studies often does not include a broad range of “real world” clinical settings (see Fig. 1).

Observational studies or “real world” data (RWD) complement RCTs, providing data on much broader patient populations managed in variable clinical settings, but may be limited by a selection or information bias, hence should not be directly compared with RCTs [1,2]. Furthermore, in some clinical circumstances, observational studies could represent the highest available level of evidence [3]. Awareness of the importance and the utilization of RWD is emerging not only in AF, but also in the area of heart failure [4].

In general, RWD may come from several data sources such as registries, nationwide cohorts, claims data or electronic health records. Consistency between the RCT results and RWD enhances the confidence in routine use of the tested treatment or intervention in clinical practice. Such an example was presented by a summary of RWD data regarding safety and effectiveness of rivaroxaban in stroke prevention among large number of patients across the globe [5].

Indeed, RWD are also an important sources of information about geographic differences in AF treatment [6,7]. Those dissimilarities can result from several reasons including regional differences in the prevalence of risk factors and/or local unmet needs (healthcare quality or medical service availability) and knowledge gaps.

Considering Europe in general, the EURObservational Research Programme – Atrial Fibrillation (EORP-AF) registry and other observational studies [8,9] showed persistently high percentage of AF patients treated with oral anticoagulant (OAC), with a progressive increase in the use of non-vitamin K OACs. Unfortunately, all-cause mortality rates among AF patients remain at a constant level of 5% [10].

Several studies have reported differences in AF management and the prevalence of guideline-adherent treatment among specific European regions. The recent insight study based on BALKAN-AF survey on the management of patients with AF [11,12] reported that those with newly diagnosed AF were less likely to receive

OAC in comparison to those with previously known AF (59.6% versus 77.7%,  $p < 0.001$ , respectively) [13]. Moreover, the use of OAC was not significantly associated with the CHA<sub>2</sub>DS<sub>2</sub>-VASc stroke risk score and HAS-BLED bleeding risk score values. Patients with newly diagnosed AF were more frequently administered with single antiplatelet therapy and rhythm control medication. Treatment regimen also differed among the Balkan countries depending on healthcare system related factors and physician’s specialty.

Outside Europe, the proportion of patients on OACs is noticeably lower [14]. In a North-American registry of over 71,000 participants, for example, 64.3% of AF patients in the US received OAC [15]. Similar observations were reported in the Global Registry on Long-Term Oral Antithrombotic Treatment in Patients with AF (GLORIA-AF), which again indicated the highest OAC use in Europe (90.1%) and suboptimal anticoagulation rate in Asia (55.2%) [6]. Overall, adherence to guidelines for AF management is frequently suboptimal in everyday clinical practice. The reasons for these differences are complex and partly unclear, possibly being influenced by inconsistent AF treatment pathways among various specialties managing AF patients in clinical practice, fear of complication such as bleeding, inappropriate dosage of the drug, lack of compliance and, at least partly, region-specific unmet needs and knowledge gaps [7].

Are there any steps that could be taken to improve the current situation? A recent systematic review addressing the prescription of OACs in AF patients showed that in 15 out of 22 studies included into the analysis, comprehensive interventions designed for enhancing appropriate treatment administration have succeeded. Involvement of health care professionals and patients education, interdisciplinary medical care programs or implementation of local guidelines were associated with substantial improvement in guideline adherence, thus reducing the rates of AF-related stroke and haemorrhage [16].

Another important step would be streamlining the management of AF patients into a simplified and holistic AF treatment pathway. Indeed, early recognition and proper management of risk factors, symptoms and comorbidities are of the utmost importance for AF care worldwide. The Atrial Fibrillation Better Care (ABC) pathway for integrated care management has been proposed for comprehensive, integrated and simple management of AF patients [17]. It was designed to enhance the awareness and detection of AF with subsequent step-by-step management of the arrhythmia, as well as to facilitate patients’ understanding of the disease. The 3 steps are A = Avoid stroke (that is, identify truly low-risk patients

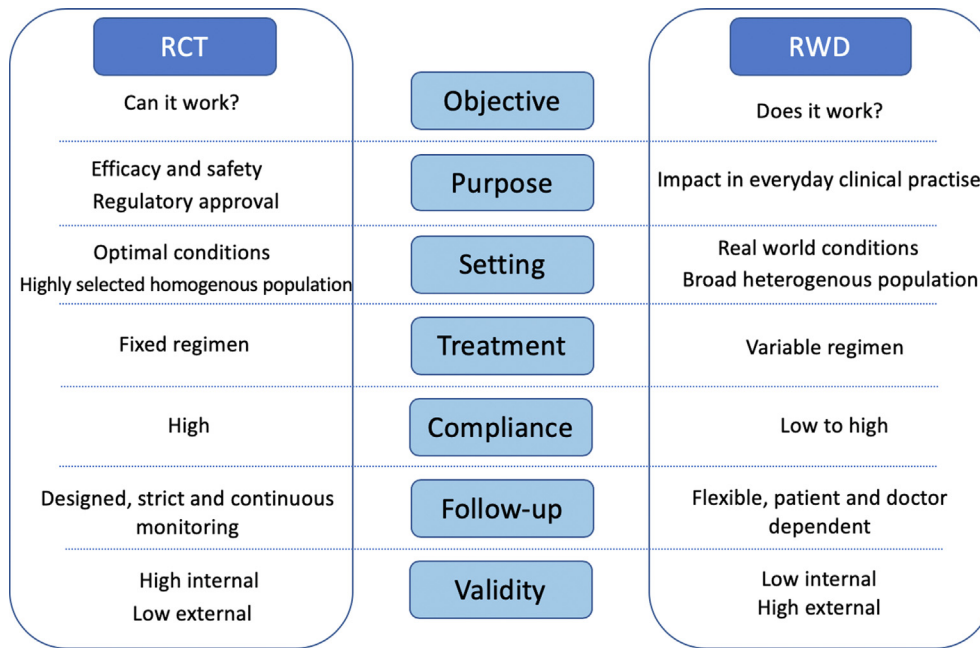


Fig. 1. Randomized control trials (RCT) versus “real-world” data (RWD). Abbreviations: RCT- Randomized control trial, RWD- “Real-world” data.

[male patients with a  $CHA_2DS_2-VASc = 0$  and females with a  $CHA_2DS_2-VASc = 1$ ] who do not need any antithrombotic therapy and offer OAC to all other AF patients), B = Better symptom management (patient-centred, informed choice of rate or rhythm control therapy) and C = Cardiovascular and other risk factors and comorbidities control. Compliance with the holistic ABC pathway was proven to be effective and associated with improved outcomes in several AF populations [18–20].

Although RCT are the key element in studying safety and efficacy of novel clinical interventions, RWD shed light on the effectiveness and safety of new treatments in a broad range of clinical settings. Both RCT and RWD contribute to the totality of evidence providing a better understanding of the complex challenge of detecting and managing AF. Prospective observational registries of AF patients from different world regions provide unique insights into region-specific patterns of AF management, healthcare system features and unmet needs/knowledge gaps, thus providing *essential evidence* informing tailored interventions directed towards improvement of overall management of AF patients and, ultimately, their outcome. Such (regional) RWD evidence is complementary to evidence from RCTs, especially since the latter may under-represent a particular region or ethnicity. Indeed, all of us would advocate evidence-based management, which should drive our clinical practice, rather eminence or VIP-based opinion that often turns a blind spot to (regional) RWD.

#### Appendix A. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijcha.2020.100473>.

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