

Multimorbidity in atrial fibrillation: A call for integrated patient-centered care

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In recent years, interest in the management of atrial fibrillation (AF) patients affected by multiple comorbidities, in a setting of clinical complexity, has substantially increased. Data derived from observational studies of different cohorts of AF patients suggest that multimorbidity is one of the main determinants of adverse cardiovascular outcomes [1]. Furthermore, an integrated approach that aims to manage AF patients holistically has been proposed for outcome improvement, as supported by observational studies [2, 3].

Recent worldwide guidelines on AF recommend managing AF patients with an integrated, patient-centered holistic approach, in a new scenario that involves collaboration of different specialists to improve AF patient outcomes by taking care of AF, underlying heart disease, as well as associated comorbidities and risk factors [4, 5]. The change in paradigm in care provision for AF patients is outlined in **Figure 1**, which shows the transition from isolated interactions between each specific specialist and the individual patient to multi-specialistic integrated care based on a network of professional interactions.

The concept of multidisciplinary integrated AF care in daily clinical practice may not be easy to implement due to logistic and organizational issues but also reluctance to modify the approach and management of patients. In order to implement and validate this approach, the Horizon 2020 research program EHRA-PATHS, "Addressing multimorbidity in elderly atrial fibrillation patients through interdisciplinary, tailored, patient-centered care pathways", was launched, and in the current

issue of the Journal, Lee et al. [6] report the results of a survey performed in this project.

The aim of Lee et al. [6] was to evaluate, through a 21-item online survey (distributed among European Heart Rhythm Association members in Europe), how multimorbidity is currently managed and how interdisciplinary care is undertaken, focusing on a comparison between Poland and other participating European countries. Specifically, the idea was to provide a baseline picture of daily practice, before implementation of the EHRA-PATHS interventional plan. A total of 341 responses were included in the analysis, with 35 (10%) from Poland. In Poland, there was a significantly lower proportion of patients referred for a comprehensive geriatric assessment (14% vs. 35%), and this situation should undergo organizational improvement due to importance of frailty for decisions on further treatment and its impact on patient outcomes [7].

In the report by Lee et al. [6], one of the main problems in the provision of care to AF patients was the lack of a model for integrated care for those AF patients with a more complex clinical profile, which could potentially have an unfavorable impact on patient outcomes. The lack of integrated care was highlighted by around half of the respondents in Poland and other European countries.

Recently, there has been an increased interest in the management of multimorbid and clinically complex AF patients [6] and, in the past ten years, an increase in the burden of comorbidities among AF patients has been observed [7]. According to the data provided by a multicenter European registry, AF pa-

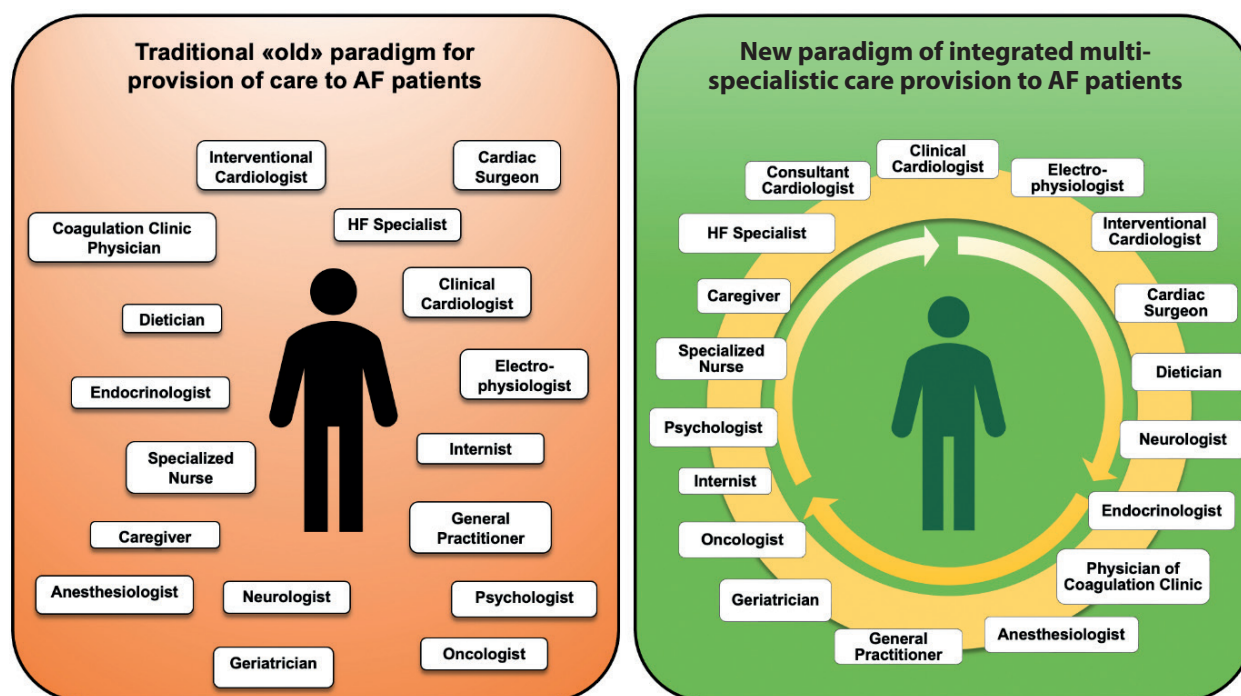


Figure 1. Change in the paradigm for care provision for AF patients. In the left panel, the traditional approach to a patient presenting AF, with uncoordinated interaction between specialists and the patient. In the right panel, the innovative multi-specialistic model based on an integrated network of professional interactions with the patient, his/her family, and caregivers

Abbreviations: AF, atrial fibrillation; HF, heart failure

tients with features of clinical complexity have an increased risk of all-cause death and adverse outcomes, as well as a reduced probability of being prescribed with a long term oral anticoagulant for effective stroke prevention [1].

Current AF guidelines recommend the use of an integrated care approach based on the “Atrial fibrillation Better Care” (ABC) pathway [3–5]. The main three pillars of this approach are: 1) avoiding stroke; 2) better symptom control; 3) cardiovascular and comorbidity risk factor management. The ABC pathway aims to manage AF patients in a holistic and integrated approach with the possibility of combining both clinical and instrumental evaluations [8, 9]. Since different comorbidities have a detrimental effect that can lead to a higher risk of adverse outcomes, clinically complex patients may benefit the most from the use of the integrated approach. As a matter of fact, the ABC pathway has been found to be associated with better outcomes in a European cohort of clinically complex patients in terms of risk of all-cause death and composite outcomes [10]. However, only fewer than one-third of these AF patients demonstrated complete adherence to the ABC pathway, which underlines that there are still barriers to implementing this approach across Europe. As recently highlighted [3], a decision to pursue a strategy of rhythm control has important implications for patients’ outcomes, also in daily practice [11].

As claimed by Lee et al. [6], the widespread implementation of this integrated approach represents only the

first step, and many other organizational and educational initiatives are needed to achieve sustained improvement among multimorbid patients. One aspect that may be very promising is the opportunity to screen for AF among asymptomatic patients at risk, such as patients aged ≥ 65 years. According to the literature [12], the rationale for opportunistic screening for AF, as also suggested by the European AF guidelines [4, 5] is that asymptomatic AF is associated with similar risks of stroke and mortality in the long term. Nowadays many tools are available which can be differently used in appropriate settings [13, 14]. However, there is still debate about which populations should be screened for AF [15]. Even in the case of clinically complex patients who could be good candidates for AF screening, there are no appropriate pathways for patient characterization and management, in terms of underlying heart disease and associated comorbidities. These pathways are still a matter of investigation.

In conclusion, the survey reported by Lee et al. [6] is of great interest since it highlights that an integrated patient-centered approach for multimorbid AF patients is still not implemented in daily practice across European countries, even though there is an increasing awareness of the problem. Therefore, more efforts are needed to implement clinical workshops in which cardiologists and nurses can collaborate with other specialists to achieve patient-centered multidisciplinary management, coupled with involvement of empowered patients, families, and caregivers.

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REFERENCES

- Proietti M, Romiti GF, Corica B, et al. Features of Clinical Complexity in European Patients with Atrial Fibrillation: A Report from a European Observational Prospective AF Registry. *Curr Probl Cardiol*. 2023 [Epub ahead of print]: 101752, doi: [10.1016/j.cpcardiol.2023.101752](https://doi.org/10.1016/j.cpcardiol.2023.101752), indexed in Pubmed: [37087078](https://pubmed.ncbi.nlm.nih.gov/37087078/).
- Proietti M, Lip GYH, Laroche C, et al. Relation of outcomes to ABC (Atrial Fibrillation Better Care) pathway adherent care in European patients with atrial fibrillation: an analysis from the ESC-EHRA EORP Atrial Fibrillation General Long-Term (AFGen LT) Registry. *Europace*. 2021; 23(2): 174–183, doi: [10.1093/europace/euaa274](https://doi.org/10.1093/europace/euaa274), indexed in Pubmed: [33006613](https://pubmed.ncbi.nlm.nih.gov/33006613/).
- Schnabel RB, Marinelli EA, Arbelo E, et al. Early diagnosis and better rhythm management to improve outcomes in patients with atrial fibrillation: the 8th AFNET/EHRA consensus conference. *Europace*. 2023; 25(1): 6–27, doi: [10.1093/europace/euac062](https://doi.org/10.1093/europace/euac062), indexed in Pubmed: [35894842](https://pubmed.ncbi.nlm.nih.gov/35894842/).
- Boriani G, Vitolo M, Lane DA, et al. Beyond the 2020 guidelines on atrial fibrillation of the European Society of Cardiology. *Eur J Intern Med*. 2021; 86: 1–11, doi: [10.1016/j.ejim.2021.01.006](https://doi.org/10.1016/j.ejim.2021.01.006), indexed in Pubmed: [33518403](https://pubmed.ncbi.nlm.nih.gov/33518403/).
- Imberti JF, Mei DA, Vitolo M, et al. Comparing atrial fibrillation guidelines: Focus on stroke prevention, bleeding risk assessment and oral anticoagulant recommendations. *Eur J Intern Med*. 2022; 101: 1–7, doi: [10.1016/j.ejim.2022.04.023](https://doi.org/10.1016/j.ejim.2022.04.023), indexed in Pubmed: [35525635](https://pubmed.ncbi.nlm.nih.gov/35525635/).
- Lee GA, Farkowski MM, Baker E, et al. Multimorbid management in atrial fibrillation: The Polish perspective in the EHRA-PATHS study. *Kardiol Pol*. 2023 [Epub ahead of print], doi: [10.33963/KP.a2023.0069](https://doi.org/10.33963/KP.a2023.0069), indexed in Pubmed: [36929302](https://pubmed.ncbi.nlm.nih.gov/36929302/).
- Savelieva I, Fumagalli S, Kenny R, et al. EHRA expert consensus document on the management of arrhythmias in frailty syndrome, endorsed by the Heart Rhythm Society (HRS), Asia Pacific Heart Rhythm Society (APHRS), Latin America Heart Rhythm Society (LAHRS), and Cardiac Arrhythmia Society of Southern Africa (CASSA). *EP Europace*. 2023; 25(4): 1249–1276, doi: [10.1093/europace/euac123](https://doi.org/10.1093/europace/euac123).
- Imberti JF, Bonini N, Tosetti A, et al. Atrial High-Rate Episodes Detected by Cardiac Implantable Electronic Devices: Dynamic Changes in Episodes and Predictors of Incident Atrial Fibrillation. *Biology (Basel)*. 2022; 11(3), doi: [10.3390/biology11030443](https://doi.org/10.3390/biology11030443), indexed in Pubmed: [35336817](https://pubmed.ncbi.nlm.nih.gov/35336817/).
- Boriani G, Valenti AC, Vitolo M. Biomarkers in atrial fibrillation: a constant search for simplicity, practicality, and cost-effectiveness. *Kardiol Pol*. 2021; 79(3): 243–245, doi: [10.33963/KP.15889](https://doi.org/10.33963/KP.15889), indexed in Pubmed: [33779121](https://pubmed.ncbi.nlm.nih.gov/33779121/).
- Romiti GF, Proietti M, Vitolo M, et al. Adherence to the “Atrial fibrillation Better Care” (ABC) pathway in patients with atrial fibrillation and cancer: A report from the ESC-EHRA EURObservational Research Programme in atrial fibrillation (EORP-AF) General Long-Term Registry. *Eur J Intern Med*. 2022; 105(1): 54–62, doi: [10.1016/j.ejim.2022.08.004](https://doi.org/10.1016/j.ejim.2022.08.004), indexed in Pubmed: [36028394](https://pubmed.ncbi.nlm.nih.gov/36028394/).
- Vitolo M, Proietti M, Imberti JF, et al. Clinical Factors Associated with Atrial Fibrillation Detection on Single-Time Point Screening Using a Hand-Held Single-Lead ECG Device. *J Clin Med*. 2021; 10(4): 1–21, doi: [10.3390/jcm10040729](https://doi.org/10.3390/jcm10040729), indexed in Pubmed: [33673209](https://pubmed.ncbi.nlm.nih.gov/33673209/).
- Sgreccia D, Manicardi M, Malavasi VL, et al. Comparing Outcomes in Asymptomatic and Symptomatic Atrial Fibrillation: A Systematic Review and Meta-Analysis of 81,462 Patients. *J Clin Med*. 2021; 10(17), doi: [10.3390/jcm10173979](https://doi.org/10.3390/jcm10173979), indexed in Pubmed: [34501434](https://pubmed.ncbi.nlm.nih.gov/34501434/).
- Bonini N, Vitolo M, Imberti JF, et al. Mobile health technology in atrial fibrillation. *Expert Rev Med Devices*. 2022; 19(4): 327–340, doi: [10.1080/17434440.2022.2070005](https://doi.org/10.1080/17434440.2022.2070005), indexed in Pubmed: [35451347](https://pubmed.ncbi.nlm.nih.gov/35451347/).
- Svennberg E, Tjong F, Goette A, et al. How to use digital devices to detect and manage arrhythmias: an EHRA practical guide. *Europace*. 2022; 24(6): 979–1005, doi: [10.1093/europace/euac038](https://doi.org/10.1093/europace/euac038), indexed in Pubmed: [35368065](https://pubmed.ncbi.nlm.nih.gov/35368065/).
- Boriani G, Imberti JF, Vitolo M. Screening for atrial fibrillation: Different approaches targeted to reduce ischemic stroke. *Kardiol Pol*. 2023; 81(1): 1–3, doi: [10.33963/KP.a2022.0281](https://doi.org/10.33963/KP.a2022.0281), indexed in Pubmed: [36475515](https://pubmed.ncbi.nlm.nih.gov/36475515/).