



# Congress Interviews

Experts in cardiology discuss advancements in the field, highlights from the European Society of Cardiology (ESC) 2024 Congress, and more. Conversations are centred around current topics: management of atrial fibrillation, digital cardiology, and acute coronary syndromes. Plus, the new ESC President, Thomas Lüscher, reveals what you can expect from the ESC in the coming years.

**Featuring:** Melanie Gunawardene, Lis Neubeck, and Thomas Lüscher.



**Melanie Gunawardene**

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**Q1** Following your medical training, what inspired you to pursue a career in clinical electrophysiology, with a particular focus on atrial fibrillation (AF)?

It really came down to the people who inspired me and who I met along the way. I was a very young student when I started doing my thesis as part of cardiology, and I had really great mentors and people around me who were passionate, supportive, engaging, and thought-provoking. That really fuelled and motivated me to become a person like them. That was around the time I was already starting to do some clinical research on AF. I stayed with the medical group after finishing my thesis and continued to work with them on a few more studies. Then I went on to work at a university hospital, where I worked on my first project on AF, and one thing led to another. I just kept going from there and never changed from that field. I was hooked from very early on.

**Q2** During the recent 'Great Debates' session at European Society of Cardiology (ESC) Congress 2024, you presented on 'Persistent atrial fibrillation: Ablation First vs. Antiarrhythmic Medication'. Could you summarise the key takeaway from your discussion?

I was pleased to present a commentary and also listen to strong arguments from both sides. I think what it comes down to is that we have good rhythm control strategies in place for AF. The question is: do they also apply for persistent AF? Of course, when we have patients who are highly symptomatic or suffering from heart failure, we know that we need to apply rhythm control strategies. AF ablation is superior in terms of AF burden reduction, symptom relief, quality of life, and hospitalisations. Also, it doesn't have the complication rate you might expect, even though it's an invasive procedure. That aside, prescribing antiarrhythmic

drugs can be difficult because they're not very effective. Clinical trials show that they are much less effective compared to catheter ablation, but then everybody says ablation is invasive and has complications. However, drugs also have complications, which are not small and can't be ignored. So, many patients aren't able to take these drugs. There has just been a study that looked at patients with new-onset AF, and of those that received antiarrhythmic drugs, they had a two-fold increase in syncope and a five-fold increased risk of pacemaker implantation. This really shows that antiarrhythmic drugs are associated with poor outcomes and can cause harm to our patients. So why should we use them if they're not effective? However, we still lack clear evidence that first-line ablation is superior for persistent AF over antiarrhythmic drugs.

We should apply effective therapies earlier and find patients before symptoms become persistent. Usually,

there's a natural course of the disease that starts with paroxysmal episodes, which progress and become persistent. But some patients present with all types of symptoms the first time they're diagnosed. It would be best to get them as soon as possible to start treatment. To gain more answers to this topic, we are currently conducting a multicentre, randomized trial in Germany in which we investigate immediate catheter ablation with the cryoballoon versus antiarrhythmic drugs in patients presenting with new-onset AF to the emergency department (EMERGE-Cryo study).

### Q3 Reflecting on the past year, what would you identify as the most significant breakthrough or piece of research in the management of AF?

I think in the past year, what has really changed was the CASTLE-HTx study by Christian Sohns from Germany. The study randomised patients with AF and heart failure, and

those patients with heart failure were being evaluated for heart transplantation. So, you could say it was a novel, sicker cohort with advanced stages of heart failure. They randomised those patients to ablation or antiarrhythmic drugs, and what they found is that catheter ablation prevented death, heart transplantation, and implantation of left ventricular assist devices and was superior to antiarrhythmic drugs. Yesterday, they presented the 2-year outcome of the study, and it showed that the benefit continued. Before this study, we were all reluctant and unsure if we should subject these very sick patients to ablation because we thought AF was just a part of that very progressed disease and late-stage heart failure. But we were shown that even in the sickest patients, if we treat them and maintain sinus rhythm, we can save those patients. I think it is really important that sinus rhythm is a pillar of heart failure treatment. This is something we have to transfer to all cardiologists



out there. For me, this was the most interesting research presented at the ESC Congress this year.

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**Q4** What were the main conclusions drawn in your recent publication, entitled 'Contemporary catheter ablation of complex atrial tachycardias after prior atrial fibrillation ablation: pulsed field vs. radiofrequency current energy ablation guided by high-density mapping'?

The study aims to answer the question of, when patients come back with the recurrence of atrial tachycardia and often have a complex substrate, do we need to apply a new energy source? Pulsed field ablation gives us a new technology, and preclinical studies have shown that lesions can be created with pulsed ablation in scarred or prior ablated myocardium. It's more homogeneous and goes through fibrosis, whereas radiofrequency might not do that. So, we thought we would compare both energy sources in the study. However, we found that it was not better in the 1-year outcome. We had high rates of AF termination, but we did not achieve the outcome we thought we would. The conventional approach was better. This might be due to the type of catheter we

used and the energy delivery itself. But I'm still hopeful that with different catheter designs, we can achieve those transmural effects and better outcomes in these patients.

**Q5** In an upcoming session at ESC, you will discuss 'Weight Reduction to Improve Outcomes After Atrial Fibrillation Ablation in Patients with Obesity'. With obesity being a major theme at this year's Congress, how do you see the topic of obesity shaping emerging therapeutic options and the future of cardiovascular care?

This is a very important issue. Yesterday, the new guidelines for AF were published, and there is a new acronym called AF-CARE, which includes comorbidities. We know that we want to achieve sinus rhythm for our patients, but there are some comorbidities that interfere and lead to AF occurrence. What we know is that weight reduction itself, even if we don't apply any other therapy, reverses and reduces AF.

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So, just by making lifestyle changes, we can reach a goal that allows us to maybe even avoid invasive therapy that otherwise could cause complications. And if those patients undergo AF ablation, outcomes are much better if they achieve and maintain weight loss. So, just by losing weight and exercising, you can do a whole lot. And I'm not talking about mild effects, but very significant ones. This topic is very important in cardiovascular medicine, not just for AF but also because weight reduction influences all cardiovascular diseases, and we can prevent them from occurring or help patients who already have these diseases.

Regarding emerging therapeutic options, while weight reduction is a great thing, it absolutely depends on patient compliance and motivation. Sometimes it is difficult for a patient to actually do, and it's hard to explain clinical data to a person who comes into your practice, to understand what matters to them without scaring them away.

**Q6** Personalised medicine is another central theme at this year's Congress. How do you envision the role of personalised medicine evolving in cardiology, particularly in the management of AF?

I think it's something we cannot avoid in personalised medicine because we do studies where we randomise patients and look for an outcome, but it's



never about an individual person, it's always a cohort of patients. However, within that cohort, people have different baseline characteristics. We have more and more information before a procedure: electrocardiograms, echocardiograms, and clinical history, and it's very hard to put this all together. This is also where I see AI being helpful. It can give us a better understanding by putting all this information on different levels together, especially for patients who are limited in our success for rhythm control. We need better strategies to achieve

better efficacy, so this could be a way forward to create personalised approaches.

**Q7** Which sessions would you highly recommend for all participants to attend at the ESC Congress 2024?

Definitely the guideline sessions, as I think it is very important for physicians to know the current guidelines in Europe, and the highlight sessions because we also need to know what's new, what's happening, and where the field is headed.

